AMENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTR	ACT	CONTRACT ID CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REC	UUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00001	See Block 1	6C		, , , ,
6. ISSUED BY CODE	HQAD		MINISTERED BY (If other than Item 6)	CODE
HQAD US Environmental Protection William Jefferson Clinton Bu 1200 Pennsylvania Avenue, N Mail Code: 3803R	ıilding			
Washington DC 20460	The same at the sa			
8. NAME AND ADDRESS OF CONTRACTOR (No., stree SCIENCE APPLICATIONS INTERNATIONA Attn: Richard Democker 12010 Sunset Hills Rd Reston VA 201905856		(X) 9B X 10	A. MODIFICATION OF CONTRACT/ORDER NO.  BHERH19D0031	o.
CODE	EACH ITY CODE		B. DATED (SEE ITEM 13)	
CODE 078883327	FACILITY CODE		8/09/2019	
☐ The above numbered solicitation is amended as set f	V/V/ 10 00 00 00 711 00 00 00 00 00 00 00 00 00 00 00 00 0		MENTS OF SOLICITATIONS  eceipt of Offers ☐ is exter	nded.  is not extended.
separate letter or electronic communication which inc RECEIVED AT THE PLACE DESIGNATED FOR THE OFFER. If by virtue of this amendment you desire to each letter or electronic communication makes refere 12. ACCOUNTING AND APPROPRIATION DATA (If req See Schedule  13. THIS ITEM ONLY APPLIES TO M	RECEIPT OF OFFERS change an offer already nce to the solicitation an uired)	PRIOR TO THE HOUR. submitted , such change d this amendment, and is	AND DATE SPECIFIED MAY RESULT IN REJE may be made by letter or electronic communications.	ECTION OF YOUR ation, provided secified.
			GES SET FORTH IN ITEM 14 ARE MADE IN TI MINISTRATIVE CHANGES (such as changes i OF FAR 43.103(b).	
appropriation data, etc.) SET FORT			or and	
X Mutual Agreement of	the parties			
D. OTHER (Specify type of modification	and authority)			
E. IMPORTANT: Contractor is not	x is required to sign t	his document and return	1 copies to the issuing	g office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 078883327 Max Expire Date: 02/15/2025 This modification is issued	(Organized by UCF sector)	tion headings, including s	solicitation/contract subject matter where feasib	
1.) Delete in its entirety s the attached C.2 Statement o			Work of the contract and	d replace with
2.) Delete in its entirety s on page 47 of the contract a Submission of Invoices (May	nd incorpora	te and uphol	d the revised EPAAR Cla	use 1552.232-70
ousiness with the U.S. Feder				=
Except as provided herein, all terms and conditions of the	ne document referenced	in Item 9 A or 10A, as he	retofore changed, remains unchanged and in fi	ull force and effect.
15A. NAME AND TITLE OF SIGNER (Type or print)		16A.	NAME AND TITLE OF CONTRACTING OFFICE	
		Tar	nya Latson	
15B. CONTRACTOR/OFFEROR	15C. D		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	16C. DATE SIGNED LECTRONIC SIGNATURE 10/09/2019
(Signature of person authorized to sign)			(Signature of Contracting Officer)	

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY L	JNIT	UNIT PRICE	AMOUNT
(A)	(B)		D)	(E)	(F)
	the Invoice Processing Platform (IPP) in order to submit their invoice(s) for payment. Information regarding the IPP system can be found at https://www.ipp.gov/;				
	EPAAR 1552.232-70 SUBMISSION OF INVOICES. (MAY 19)				
	(a) Electronic invoicing and the Invoice Processing Platform (IPP)-(1) Definitions. As used in this clause-				
	Contract financing payment and invoice payment are defined in Federal Acquisition Regulation (FAR) 32.001.				
	Electronic form means an automated system that transmits information electronically from the initiating system to all affected systems. Facsimile, email, and scanned documents are not acceptable electronic forms for submission of payment requests. However, scanned documents are acceptable when they are part of a submission of a payment request made using Invoice Processing Platform or another electronic form authorized by the Contracting Officer.				
	Payment request means any request for contract financing payment or invoice payment submitted by the Contractor under this contract.				
	(2)(i) Except as provided in paragraph (c) of this clause, the Contractor shall submit invoices using the electronic invoicing program Invoice Processing Platform (IPP), which is a secure web-based service provided by the U.S. Treasury that more efficiently manages government invoicing.				
	Continued				

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NAME OF OFFEROR OR CONTRACTOR

TEM NO.	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	(ii) Under this contract, the following documents are required to be submitted as an attachment to the IPP invoice: (This is a fill-in for acceptable types of required documentation, such as an SF 1034 and 1035, or an invoice/self-designed form on company letterhead that contains the required information.)				
	(iii) The Contractor's Government Business Point of Contact (as listed in System for Award Management (SAM)) will receive enrollment instructions via email from the IPP. The Contractor must register within 3 to 5 days of receipt of such email from IPP.				
	(iv) Contractor assistance with enrollment can be obtained by contacting the IPP Production Helpdesk via email at IPPCustomerSupport@fiscal.treasury.gov or by telephone at (866) 973-3131.				
	(3) If the Contractor is unable to comply with the requirement to use IPP for submitting invoices for payment, the Contractor shall submit a waiver request in writing to the Contracting Officer. The Contractor may submit an invoice using other than IPP only when-				
	(i) The Contracting Officer administering the contract for payment has determined, in writing, that electronic submission would be unduly burdensome to the Contractor; and in such cases, the Contracting Officer shall modify the contract to include a copy of the Determination; or				
	(ii) When the Governmentwide commercial purchase card is used as the method of payment.				
	Continued				

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	(4) The Contractor shall submit any non-electronic payment requests using the method or methods specified in Section G of the contract.				
	(5) In addition to the requirements of this clause, the Contractor shall meet the requirements of the appropriate payment clauses in this contract when submitting payment requests.				
	(6) Invoices submitted through IPP will be either rejected, or accepted and paid, in their entirety, and will not be paid on a partial basis.				
	(b) Invoice preparation. The Contractor shall prepare its invoice or request for contract financing payment in accordance with FAR 32.905 on the prescribed Government forms, or the Contractor may submit self-designed forms which contain the required information. Standard Form 1034, Public Voucher for Purchases and Services other than Personal, is prescribed for used by contractors to show the amount claimed for reimbursement. Standard Form 1035, Public Voucher for Purchases and Services other than Personal-Continuation Sheet, is prescribed for use to furnish the necessary supporting detail or additional information required by the Contracting Officer.				
	(c) Invoice content. (1) The Contractor shall prepare a contract level invoice or request for contract financing payment in accordance with the invoice preparation instructions. If contract work is authorized by an individual task order or delivery order (TO/DO), the invoice or request for contract financing payment shall also include a summary of the current and cumulative amounts claimed by cost element for each TO/DO and for the contract total, as well as any supporting data for each TO/DO as identified in the instructions.  Continued				

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NAME OF OFFEROR OR CONTRACTOR

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	(2) The invoice or request for contract financing				
	payment shall include current and cumulative				
	charges by major cost element such as direct				
	labor, overhead, travel, equipment, and other				
	direct costs. For current costs, each major cost				
	element shall include the appropriate supporting				
	schedule identified in the invoice preparation				
	instructions. Cumulative charges represent the				
	net sum of current charges by cost element for				
	the contract period.				
	_				
	(d) Subcontractor charges. (1) The charges for				
	subcontracts shall be further detailed in a				
	supporting schedule showing the major cost				
	elements for each subcontract.				
	croments for each subcontract.				
	(2) On a case-by-case basis, when needed to				
	verify the reasonableness of subcontractor costs,				
	the Contracting Officer may require that the				
	contractor obtain from the subcontractor cost				
	information in the detail set forth in paragraph				
	(c) (2) of this section. This information should				
	be obtained through a means which maintains				
	subcontractor confidentiality (for example, via				
	sealed envelopes), if the subcontractor expresses				
	Confidential Business Information (CBI) concerns.				
	Confidencial Easthess Informacion (CEI) Concerns.				
	(e) Period of performance indication. Invoices or				
	requests for contract financing payment must				
	clearly indicate the period of performance for				
	which payment is requested. Separate invoices or				
	requests for contract financing payment are				
	required for charges applicable to the base				
	contract and each option period.				
	(f) Invoice submittal. (1) Notwithstanding the				
	provisions of the clause of this contract at FAR				
	52.216-7, Allowable Cost and Payment, invoices or				
	requests for contract financing payment shall be				
	submitted once per month unless there has been a				
	Continued				

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NAME OF OFFEROR OR CONTRACTOR

TEM NO.	SUPPLIES/SERVICES (B)	QUANTITY (C)	<b>иніт</b> (D)	UNIT PRICE (E)	AMOUNT (F)
	demonstrated need and Contracting Officer approval for more frequent billings. When submitted on a monthly basis, the period covered by invoices or requests for contractor financing payments shall be the same as the period for monthly progress reports required under this contract.				
	(2) If the Contracting Officer allows submissions more frequently than monthly, one submittal each month shall have the same ending period of performance as the monthly progress report.				
	(3) Where cumulative amounts on the monthly progress report differ from the aggregate amounts claimed in the invoice(s) or request(s) for contract financing payments covering the same period, the contractor shall provide a reconciliation of the difference as part of the payment request.				
	(g) EPA Invoice Preparation Instructions-SF 1034. The information which a contractor is required to submit in its Standard Form 1034 is set forth as follows:				
	(1) U.S. Department, Bureau, or establishment and location-Insert the names and address of the servicing finance office, unless the contract specifically provides otherwise.				
	(2) Date Voucher Prepared-Insert date on which the public voucher is prepared and submitted.				
	(3) Contract/Delivery Order Number and Date-Insert the number and date of the contract and task order or delivery order, if applicable, under which reimbursement is claimed.  Continued				

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	(4) Requisition Number and Date-Leave blank.				
	(5) Voucher Number-Insert the appropriate serial number of the voucher. A separate series of consecutive numbers, beginning with Number 1, shall be used by the contractor for each new contract. For an adjustment invoice, write "(invoice number) #Adj" at the voucher number. For a final invoice, put invoice number #C.				
	(6) Schedule Number; Paid By; Date Invoice Received-Leave blank.				
	(7) Discount Terms-Enter terms of discount, if applicable.				
	(8) Payee's Account Number-This space may be used by the contractor to record the account or job number(s) assigned to the contract or may be left blank.				
	(9) Payee's Name and Address-Show the name of the contractor exactly as it appears in the contract and its correct address, except when an assignment has been made by the contractor, or the right to receive payment has been restricted, as in the case of an advance account. When the right to receive payment is restricted, the type of information to be shown in this space shall be furnished by the Contracting Officer.				
	(10) Shipped From; To; Weight Government B/L Number-Insert for supply contracts.				
	Continued				

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NAME OF OFFEROR OR CONTRACTOR

(11) Date of Delivery or Servicey day and year, beginning and eincurrence of costs claimed: Adjustments to costs for priciple dentify the period applicably incurrence, e.g., revised proposed incurrence, e.g., revised proposed indirect cost rates, award for claimed transferred from Page Form 1035." Insert "COST REIN PAYMENT" or "INDEFINITE QUANT DELIVERY-PROVISIONAL PAYMENT" public vouchers. Insert "COST REIMBURSABLE-COMPLETION VOUCH QUANTITY/INDEFINITE DELIVERY on the Completion public vouch REIMBURSABLE-FINAL VOUCHER" QUANTITY/INDEFINITE DELIVERY the final public voucher. Insertification, signed by an anon the face of the Standard of the Standar	rice-Show the month,		(E)	(F)
"For detail, see Standard For claimed transferred from Page Form 1035." Insert "COST REIM PAYMENT" or "INDEFINITE QUANT DELIVERY-PROVISIONAL PAYMENT" public vouchers. Insert "COST REIMBURSABLE-COMPLETION VOUCH QUANTITY/INDEFINITE DELIVERY on the Completion public voucher. Insert "QUANTITY/INDEFINITE DELIVERY the final public voucher. Insertification, signed by an on the face of the Standard on the face of the Standard of the S	for reimbursement.  or periods should  le to their  ovisional or final			
agreements set forth in the o	rm 1035 total amount  e of Standard  MBURSABLE-PROVISIONAL  FITY/INDEFINITE  " on the Interim  HER" or "INDEFINITE  -COMPLETION VOUCHER"  Cher. Insert "COST  or "INDEFINITE  -FINAL VOUCHER" on  Sert the following  authorized official,  Form 1034:  requested are for			
(Title)				
(13) Quantity; Unit Price-Inscontracts.	sert for supply			
Continued				

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY (C)	UNIT	UNIT PRICE (E)	AMOUNT (F)
(A)	(B)	(C)	(D)	(E)	(F)
	(14) Amount-Insert the amount claimed for the period indicated in paragraph (g)(11) of this clause.				
	(h) EPA Invoice Preparation Instructions-SF 1035. The information which a contractor is required to submit in its Standard Form 1035 is set forth as follows:				
	(1) U.S. Department, Bureau, or Establishment-Insert the name and address of the servicing finance office.				
	(2) Voucher Number-Insert the voucher number as shown on the Standard Form 1034.				
	(3) Schedule Number-Leave blank.				
	(4) Sheet Number-Insert the sheet number if more than one sheet is used in numerical sequence. Use as many sheets as necessary to show the information required.				
	(5) Number and Date of Order-Insert payee's name and address as in the Standard Form 1034.				
	(6) Articles or Services-Insert the contract number as in the Standard Form 1034.				
	(7) Amount-Insert the latest estimated cost, fee (fixed, base, or award, as applicable), total contract value, and amount and type of fee payable (as applicable).  Continued				

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(A)					
	(B)	(C)	(D)	(E)	(F)
	(8) A summary of claimed current and cumulative costs and fee by major cost element-Include the rate(s) at which indirect costs are claimed and indicate the base of each by identifying the line of costs to which each is applied. The rates invoiced should be as specified in the contract or by a rate agreement negotiated by EPA's Cost and Rate Negotiation Team.				
	(9) Fee-The fee shall be determined in accordance with instructions appearing in the contract.				
	Note to paragraph (h)-Amounts claimed on vouchers must be based on records maintained by the contractor to show by major cost element the amounts claimed for reimbursement for each applicable contract. The records must be maintained based on the contractor's fiscal year and should include reconciliations of any differences between the costs incurred and amounts claimed for reimbursement. A memorandum record reconciling the total indirect cost(s) claimed should also be maintained.				
	(i) Supporting Schedules for Cost Reimbursement Contracts. The following backup information is required as an attachment to the invoice as shown by category of cost:				
	(1) Direct Labor-Identify the number of hours (by contractor labor category and total) and the total loaded direct labor hours billed for the period in the invoice.				
	(2) Indirect Cost Rates-Identify by cost center, the indirect cost rate, the period, and the cost base to which it is applied.  Continued				

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT	UNIT PRICE (E)	AMOUNT (F)
	(3) Subcontracts-Identify the major cost elements for each subcontract.				
	(4) Other Direct Costs-When the cost for an individual cost (e.g., photocopying, material and supplies, telephone usage) exceeds \$1,000 per the invoice period, provide a detailed explanation for that cost category.				
	(5) Contractor Acquired Equipment (if authorized by the contract)-Identify by item the quantities, unit prices, and total dollars billed.				
	(6) Contractor Acquired Software (if authorized by the contract)-Identify by item the quantities, unit prices, and total dollars billed.				
	(7) Travel-When travel costs exceed \$2,000 per invoice period, identify by trip, the number of travelers, the duration of travel, the point of origin, destination, purpose of trip, transportation by unit price, per diem rates on daily basis and total dollars billed. Detailed reporting is not required for local travel. The manner of breakdown, e.g., task order/delivery order basis with/without separate program management, contract period will be specified in the contract instructions.				
	Note to paragraph (i)-Any costs requiring advance consent by the Contracting Officer will be considered improper and will be disallowed, if claimed prior to receipt of Contracting Officer consent. Include the total cost claimed for the current and cumulative-to-date periods. After the total amount claimed, provide summary dollar amounts disallowed on the contract as of the date Continued				

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES (B)	QUANTITY (C)	<b>иніт</b> (D)	UNIT PRICE (E)	AMOUNT (F)
	of the invoice. Also include an explanation of the changes in cumulative costs disallowed by addressing each adjustment in terms of: Voucher number, date, dollar amount, source, and reason for the adjustment. Disallowed costs should be identified in unallowable accounts in the contractor's accounting system.				
	(j) Supporting Schedules for Time and Materials Contracts. The following backup information is required as an attachment to the invoice as shown by category of cost:				
	(1) Direct Labor-Identify the number of hours (by contractor labor category and total) and the total direct labor hours billed for the period of the invoice.				
	(2) Subcontracts-Identify the major cost elements for each subcontract.				
	(3) Other Direct Costs-When the cost for an individual cost (e.g., photocopying, material and supplies, telephone usage) exceeds \$1,000 per the invoice period, provide a detailed explanation for that cost category.				
	(4) Indirect Cost Rates-Identify by cost center, the indirect cost rate, the period, and the cost base to which it is applied.				
	(5) Contractor Acquired Equipment-Identify by item the quantities, unit prices, and total dollars billed.				
	(6) Contractor Acquired Software-Identify by item Continued				

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NAME OF OFFEROR OR CONTRACTOR

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY UI	NIT D)	UNIT PRICE (E)	AMOUNT (F)
	the quantities, unit prices, and total dollars billed.				
	(7) Travel-When travel costs exceed \$2,000 per invoice period, identify by trip, the number of travelers, the duration of travel, the point of origin, destination, purpose of trip, transportation by unit price, per diem rates on daily basis and total dollars billed. Detailed reporting is not required for local travel. The manner of breakdown, e.g., task order/delivery order basis with/without separate program management, contract period will be specified in the contract instructions.				
	Note to paragraph (j)-Any costs requiring advance consent by the Contracting Officer will be considered improper and will be disallowed, if claimed prior to receipt of Contracting Officer consent. Include the total cost claimed for the current and cumulative-to-date periods. After the total amount claimed, provide summary dollar amounts disallowed on the contract as of the date of the invoice. Also include an explanation of the changes in cumulative costs disallowed by addressing each adjustment in terms of: Voucher number, date, dollar amount, source, and reason for the adjustment. Disallowed costs should be identified in unallowable accounts in the contractor's accounting system.				
	(k) Adjustment vouchers. Adjustment vouchers should be submitted if finalized indirect rates were received but the rates are not for the entire period of performance. For example, the base period of performance is for a calendar year but your indirect rates are by fiscal year. Hence, only part of the base period can be adjusted for the applicable final indirect rates. These invoices should be annotated with "adj" after the invoice number.				
	Continued				

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NAME OF OFFEROR OR CONTRACTOR

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

EM NO.	SUPPLIES/SERVICES	QUANTITY UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C) (D)	(E)	(F)
	(1) Final vouchers. Final Vouchers shall be submitted if finalized rates have been received			
	for the entire period of performance. For			
	example, the base period of performance is for a			
	calendar year but your indirect rates are by			
	fiscal year. You have received finalized rates			
	for the entire base period that encompass both			
	fiscal years that cover the base period. In			
	accordance with FAR 52.216-7, these invoices			
	shall be submitted within 60 days after			
	settlement of final indirect cost rates. They			
	should be annotated with the word "Final" or "F"			
	after the invoice number. Due to system			
	limitations, the invoice number cannot be more			
	than 11 characters to include spaces.			
	than if characters to include spaces.			
	(m) Completion vouchers. In accordance with FAR			
	52.216-7(d)(5), a completion voucher shall be			
	submitted within 120 days (or longer if approved			
	in writing by the Contracting Officer) after			
	settlement of the final annual indirect cost			
	rates for all years of a physically complete			
	contract. The voucher shall reflect the settled			
	amounts and rates. It shall include settled			
	subcontract amounts and rates. The prime			
	contractor is responsible for settling			
	subcontractor amounts and rates included in the			
	completion invoice. Since EPA's invoices must be			
	on a period of performance basis, the contractor			
	shall have a completion invoice for each year of			
	the period of performance. This voucher must be			
	submitted to the Contracting Officer for review			
	and approval before final payment can be made on			
	the contract. The Contracting Officer may request			
	an audit of the completion vouchers before final			
	payment is made. In addition, once approved, the			
	Contracting Officer will request the appropriate			
	closeout paperwork for the contract. For			
	contracts separately invoiced by delivery or task			
	order, provide a schedule showing final total			
	costs claimed by delivery or task order and in			
	total for the contract. In addition to the			
	completion voucher, the contractor must submit			
	the Contractor's Release; Assignee's Release, if			
	applicable; the Contractor's Assignment of			
	Refunds, Rebates, Credits and other Amounts; the			
	Assignee's Assignment of Refunds, Rebates,			
	Credits and other Amounts, if applicable; and the			
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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C) (D)	(E)	(F)
	Contractor's Affidavit of Waiver of Lien, when	+ + +		1,50 - 10
	required by the contract.	1 11		
	I squired by one concruce.			
	3.) On Page 48, Section G.4 EPAAR 1552.211-72	1 11		
	Monthly Progress Report (C) (6) (g) shall be			
	revised to read the following:			
		1 11		
	"The reports shall be submitted to the following			
	addresses on or before the 15th of each month			
	following the first complete reporting period of			
	the contract."	1 11		
	Payment:	1 11		
	RTP Finance Center	1 11		
	US Environmental Protection Agency	1 11		
	RTP-Finance Center (AA216-01) 109 TW Alexander Drive	1 11		
	www2.epa.gov/financial/contracts			
	Durham NC 27711			
	Period of Performance: 08/16/2019 to 08/15/2020			
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# C.1 STATEMENT OF WORK (SOW)

Technical and Outreach Support Services for Greenhouse Gas Program

#### INTRODUCTION & BACKGROUND

The Greenhouse Gas (GHG) Program in the Office of Atmospheric Programs (OAP) develops and delivers data, analysis, and technical information and assistance to identify technologies and strategies for industries, states, communities and tribes to meet Clean Air Act obligations and other statutory requirements. This includes a range of activities such as managing the annual data reporting, verification and publication of greenhouse gas (GHG) data and compiling the Inventory of US Greenhouse Gas Emissions and Sinks; implementing partnership programs targeting non-CO<sub>2</sub> GHGs; developing analysis and support related to GHG emissions, technologies, economics, science, and policy across key sectors; applying the latest GHG emissions impacts and science information in policy contexts; conducting comprehensive economic analysis of GHG and energy policies; advancing understanding of the key mitigation technologies; general policy and analysis; and coordinating communication. The program coordinates extensively with EPA's headquarters and regional offices as well as other Government agencies (e.g., Department of Energy, Department of Interior, Department of Transportation, US Department of Agriculture, Council on Environmental Quality, Council of Economic Advisors, National Oceanic and Atmospheric Association, National Aeronautics and Space Administration, the Office of Management and Budget, US Global Change Research Program, etc) and state agencies, on a myriad of issues (e.g., Clean Air Act; Safe Drinking Water Act; greenhouse gas monitoring, reporting, and verification; science assessments).

Given the complexity of the issues, the Greenhouse Gas Program has worked to develop versatile capabilities and tools that can be used in a variety of ways. These efforts are typically in the functional areas of a) technical analytical support b) data and analysis c) policy and program support, d) communication and training support, e) data systems and information technology support as well as f) general support that applies to all functional areas. These efforts include, but are not limited to:

- Monitoring, Reporting and Verification (MRV): The program is a resource for data on U.S. and global
  emissions and sequestration, inventory and accounting development, direct facility reporting, monitoring
  methods, and the design of effective MRV and data systems for a range of policies.
- Economic Modeling: The program has developed modeling tools and conducts analysis on a wide range of issues (e.g., sector-based strategies, benefits).
- Science and Impacts: The program plays a role in assessing and communicating the latest science and impacts information in policy contexts (e.g., resiliency, avoided impacts/costs, indicators).
- Policy Analysis: The program provides information on several key issues and sound deployment of
  mitigation technologies, including, non-CO<sub>2</sub> GHGs, market-based mechanisms, accounting for CO<sub>2</sub>
  emissions from biogenic sources, land use change and forestry, carbon capture and sequestration (CCS)
  (particularly storage issues), and MRV across GHG emissions sources.

- Non-CO<sub>2</sub> GHGs: The program is an important resource on the cost and performance of technologies to
  reduce emissions of methane and fluorinated GHGs from industrial sources (e.g., landfills, oil and gas, coal
  mines, agricultural sources) and providing analysis, assessment tools, materials, workshops, etc to
  characterize opportunities for abatement and capture and use of methane across a variety of
  stakeholders and partnerships.
- Agriculture, forestry and other land-use: The program has developed a strong interdisciplinary expertise
  in assessing emissions from this sector, including monitoring, economics, impacts, and policies.
- Communication: The program maintains several websites and is focusing on improvement and accessibility as technology advances.

The contractor shall submit all analyses, options, recommendations, reports, and training materials required under this contract in draft for critical review by the contracting officer or contracting officer's representative. The Government will make all final regulatory, policy, and interpretive decisions resulting from contractor-provided technical support under this contract and shall make the final decision on all contractor-provided recommendations, options, assessments, analyses, etc. All reports, materials, or work products generated under this Statement of Work shall be submitted for Government review and approval prior to use or distribution. The contractor shall not publish or otherwise release, distribute, or disclose any work product generated under this contract without obtaining EPA's express advance written approval. When submitting materials or reports that contain recommendations, the contractor shall explain or rank policy or action alternatives; describe procedures used to arrive at recommendations; summarize the substance of deliberations; report any dissenting views; list sources relied upon; and detail the methods and considerations under which the recommendations are based. Furthermore, the contractor shall not provide legal services to EPA under this contract, absent express written advance approval from EPA's Office of General Counsel.

All contractor, subcontractor, and consultant personnel shall wear prominently displayed identification badges at all times when performing tasks under this contract and when interacting with EPA officials, federal agencies, state, tribal, and local governments, business, industry, and the general public. The badge shall contain the individual's name and the company's name and logo. The office space occupied by the contractor staff in any location that is also occupied by EPA employees shall be identified with appropriate signs that include the contractor's name. When participating in any event and/or discussion (e.g., answering the telephone, participating as a panel member or speaker) contractor staff shall verbally identify themselves as contractor personnel so that there is no possible appearance of being EPA officials.

The contractor shall be prepared to conduct the work specified below in the US and internationally, if appropriate and authorized by the EPA CO or COR. The contractor shall furnish the necessary personnel, material, equipment, services and facilities (except as otherwise specified) to perform the Tasks as follows:

# II. TASKS

# A. Technical Analytical Support

1. The Contractor shall identify, conduct and evaluate economic and policy analyses of mitigation strategies for GHG emissions and sinks. Analyses may be for specific technologies, for specific United States sectors (e.g.,

energy, industry, transportation, forestry and agriculture), for the United States economy, for key domestic or world regions, or globally. The Contractor shall identify, conduct and evaluate studies of the economic costs and benefits of incentives and subsidies, regulations, policies, partnership programs, market mechanisms, bans, and de-regulatory activities.

- 2. The Contractor shall analyze economic impacts of EPA actions and programs, such as societal costs and benefits, burdens on affected parties (including small businesses), and effects on other government regulatory and policy priorities. The Contractor shall conduct non-economic components of regulatory impact analysis, such as analyzing extent to which regulatory actions comply with rulemaking-related Executive Orders and statutes. The Contractor shall analyze the effects of domestic and international energy efficiency programs on GHG reductions and government regulations and policies. The Contractor shall analyze associated environmental, economic, technical, and other impacts of EPA and other programs and activities. The Contractor shall evaluate the suitability of alternate or complementary policies (e.g., allowance set-asides, incentive programs, fees, etc.).
- 3. The Contractor shall identify, conduct and evaluate technical analysis of the impacts of GHGs across different emission scenarios and estimate the monetary and non-monetary damages from these impacts on the United States and globally. This work includes both market impacts (e.g., energy production and consumption, forestry and agriculture, tourism, coastal damages and shore protection costs) and non-market impacts (e.g., human health, ecosystem services, recreational use of public resources such as national parks) of GHGs, and adaptive response (actual or planned) to impacts. Also, the impact sector analyses may be incorporated, where appropriate, into broader analytical frameworks (e.g., integrated assessment models) or larger sectoral models. The Contractor shall also identify and develop risk characterization and probability efforts to more effectively communicate impacts/benefits of various GHG emission scenarios. This may include the application of a risk management approach to characterizing benefits and may focus on impacts that are particularly difficult to quantify and/or monetize.
- 4. The Contractor shall research, identify, evaluate, track, and develop indicators to better understand and communicate the impact of GHGs. The Contractor shall inform development of communication and training materials through identifying and assessing climate impacts on vulnerable populations (e.g., tribes, children, environmental justice communities, etc) and through tracking local government efforts to build resiliency and adapt to a changing climate. The Contractor shall perform activities related to this topic, including tracking and maintaining appropriate datasets and other documentation, formulating data to present and communicate key findings, researching the scientific literature, organizing workshops to gather feedback on EPA's indicator efforts and solicit ideas for new indicator development, and preparing indicator reports for print and/or the web. This work shall be conducted in a way that ensures that data quality objectives are met.
- 5. (Optional)The Contractor shall develop or access appropriate models to conduct analyses, including review, testing, and modification of models. The Contractor shall validate and run mathematical models to perform direct analyses and sensitivity analyses of physical-chemical processes, biological responses, and economic systems, and assess options for mitigation, adaptation, or other strategies, and track progress of actions taken to mitigate or adapt to a changing climate. The Contractor shall build databases in which to maintain data. The Contractor shall maintain current documentation about the model code, inputs, validation, runs, and output and make available to EPA upon request. In addition, the Contractor shall review and compare models developed by others and analyze results in terms of accuracy of assumptions and quality of analysis. The Contractor shall develop, construct, assess, refine and use a range of analytical modeling tools related to all program areas under the SOW (see below for examples of modeling tools).

- 6. Models requiring direct development, support, utilization or some combination thereof include the following:
  - a. Economic Modeling: The Contractor shall estimate the effectiveness and outcomes of policies and measures using a variety of platforms including, but not limited to, computable general equilibrium models, energy sector models, forestry and agriculture models, industrial sector models, international trade models, and spreadsheet-based models.
  - b. Land Use and Land Use Change Modeling: The Contractor shall model and analyze climate, energy, land use and other policy implications for competition between land uses, including but not limited to, interactions between and activities within the forestry, agriculture and bioenergy sectors. The Contractor shall collect data for and evaluate forestry, bioenergy and agricultural economic activity (including sector-specific commodity markets) and biophysical conditions, GHG emissions, carbon sequestration and accounting, GHG mitigation and bioenergy potential, and sector-related impacts in the U.S. and internationally.
  - c. Integrated Assessment, Climate, and Atmospheric Modeling: The Contractor shall model the atmospheric impacts of various emissions scenarios and the atmospheric interactions of various gases in conjunction with the damages or benefits (economic impacts) due to a changing climate and mitigation options, assess different feedback effects and ecological and other types of responses, simulate the world economy through time with the objective of producing scenarios of GHGs and their precursors emitted as a result of human activities, and provide resulting emissions scenarios to serve as inputs into Earth System Models along with scenarios of natural emissions of GHGs from ecosystems modeling to produce scenarios of climate change induced by GHGs. The Contractor shall develop improved estimates of the economic impacts and climatic implications of measures to reduce emissions of GHGs, particularly focused on the non-CO<sub>2</sub> GHGs.
- 7. In addition to long-lived GHGs, EPA is interested in black carbon (BC) and other climate short-lived forcers and is involved in a number of policy efforts related to BC such as activities under the Arctic Council. EPA may need contractor assistance to identify, review, analyze, assess, develop, and communicate the following for BC: (1) domestic, regional, and global emissions sources and concentrations; (2) global and regional radiative forcing effects of organic carbon and other co-emitted pollutants; (3) global and regional temperature and precipitation effects and other non-radiative effects; and (4) economic and/or policy analyses of potential mitigation options.
- 8. The Contractor shall evaluate carbon capture, utilization and sequestration technologies for mitigating GHG emissions, including: (1) analysis and assessment of CCS technologies, e.g. capture from power plants or industrial sources, transport, injection, and long-term storage in geologic formations (such as deep saline formations, oil and gas reservoirs, and unmineable coal seams); (2) analysis and assessment of technologies for utilizing anthropogenic CO<sub>2</sub>; (3) evaluation of technical and non-technical aspects related to CCS deployment; (4) evaluation of risks to human health and the environment; and (5) evaluation of technologies and methodologies for monitoring CCS projects, including detection and quantification of potential surface leakage from geologic sequestration sites.

- 9. The Contractor shall assess technologies and approaches relevant to reducing GHG emissions such as energy efficiency, clean energy, bioenergy, CCS, low-GWP substitute gases or substances, or management practices. For each technology or approach, the Contractor shall estimate effectiveness, cost, applicability, related cobenefits such as effects on air quality, and any other environmental impacts. The Contractor shall summarize these bottom-up technology assessments as marginal abatement curves or other tools, and develop approaches to incorporate bottom-up approaches in modeling or policy analysis efforts, such as in top-down and general equilibrium modeling of GHG reductions policies and programs. For example, the Contractor shall develop regional cost curves based on assessments of mitigation costs and practicable quantities for incorporation in general equilibrium modeling.
- 10. The Contractor shall provide technical and analytical support for technology demonstration projects in the US and internationally. These projects may involve demonstrations of any or all parts of a methane mitigation or recovery system, treatment and final use or disposal of gas and liquid and solid effluent portions. This support may include site-specific engineering design, fabrication, installation and start-up assistance, trouble-shooting, operator training, data collection and monitoring, research, data analysis, and development of technical papers. Demonstration projects may require the purchase and installation of equipment, either for system operation, such as tanks or flares, or for evaluation, such as gas meters. The Contractor shall focus on technologies that are affordable, replicable, serviceable, and appropriate for the sub-sector and climate targeted.

# B. Data and Analysis

- 1. The Contractor shall support efforts to develop the annual Inventory of United States GHG Emissions and Sinks report submitted to the United Nations Framework Convention on Climate Change (UNFCCC). The Contractor shall estimate GHG emissions from the GHGs required by the UNFCCC, including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. The Contractor shall calculate carbon dioxide emissions that are removed from the atmosphere by "sinks." The Contractor shall calculate uncertainty and perform required quality assurance/quality control (QA/QC) procedures. The Contractor shall use accepted international methodologies, such as those developed by the Intergovernmental Panel on Climate Change (IPCC), while investigating new methodologies and data sources applicable to United States sources and sinks. The Contractor shall incorporate information from other EPA data sets such as the Greenhouse Gas Reporting Program.
- Estimates of GHG emissions and sinks are needed across all sectors at national, state, corporate, and project scales. The Contractor shall conduct research on methodological advances, and develop methodologies for estimation of GHG emissions and sinks. The Contractor shall collect and analyze data domestically and internationally to develop GHG inventory estimates, and/or to develop performance/emissions benchmarks across sectors, and for project activities.
- 3. The Contractor shall conduct technical and scientific analyses to advance tools, data, and evaluation methodologies on land use, land use change, and forestry, including mitigation and biomass potential and bioenergy demand. The Contractor shall research and develop an approach to account for leakage and analyze methodologies for accounting for and assessing trends of natural disturbances (such as wildfire).

- 4. The Contractor shall track historical and project future GHG emissions, including non-CO<sub>2</sub> GHG emissions, for domestic regions, the United States, and internationally based on available activity data, emissions reports, and standard emissions calculation and projection methodologies. The Contractor shall characterize source industries in detail and identify the specific processes within those industries producing emissions. The Contractor shall also characterize and assess sectors in which sequestration and other sink activities occur.
- 5. (Optional)The Contractor shall enhance electronic data management systems for compiling, archiving and publishing greenhouse gas inventory data in order to streamline processes and improve data quality and data usage for both internal and external inventory data users.
- 6. The Contractor shall track the latest research relevant to improvements to GHG Inventory estimates. The Contractor shall conduct assessments of key studies with data that could be used to directly update the GHG Inventory (e.g. improved activity data and improved emission factors) and make recommendations for integrating new information into the GHG Inventory. The Contractor shall examine new studies that assess remote sensing capabilities for measuring GHGs, present top down estimates of GHGs, or compare results of top down studies with bottom up estimates, and provide recommendations on how this information can be used to assess the GHG Inventory.
- 7. The Contractor shall provide necessary technical support for implementation, verification and publication of the data collected under the Greenhouse Gas Reporting Program (40 CFR 98), including but not limited to:
  - Review and evaluate existing as well as new or proposed data reporting requirements relevant to source categories including: evaluating the scope of affected sources including, but not limited to, the level of reporting (unit/facility), the number of reporters, data reported (e.g., fuels, emissions data, operating parameters); evaluating the frequency of reporting; analyzing monitoring methods required for various data elements; analyzing requirements for calculating emissions from missing data, if applicable; analyzing QA/QC requirements; evaluating the availability of relevant public information; and analyzing verification and certification procedures.
  - Review and evaluate existing and new monitoring methods and/or sources including reviewing state-level data as appropriate for any relevant updates and consider gaps and means to address any gaps.
  - Develop issue papers on specific topics associated with implementation such as new source
    categories, "facility" definitions; thresholds for reporting, monitoring equipment currently used (e.g.,
    current and near future technologies, costs) and calibration requirements, data management and
    improvements; verification; recordkeeping and reporting; cross-walking of data (e.g., incorporation of
    GHG reporting rule data or methods into U.S. GHG Inventory report).
  - Prepare responses to technical questions on source categories such as on equipment, instrument calibration, calculation methods, monitoring methods, data ranges, and verification procedures.
  - Perform field tests and studies, including: assessing the appropriateness and effectiveness of
    continuous emission monitoring systems or other emissions quantification techniques for measuring
    or quantifying parameters such as GHGs; examining new reference methods or systems for use with
    continuous emission monitoring or other tiers used in the GHGRP; assessing the quality of calibration
    standards (including cylinder gas standards and calibration gas generators) used to quality assure
    data collected by measurement methods and monitoring systems; developing emission factors for
    large stationary sources including power boilers and industrial boilers and for emissions including
    GHGs.
  - Analyze options for conducting verification of data using expertise in both industrial processes and statistics.

- Compare verification results with states/regional programs requiring third party verification.
- Analyze options for using outside data sets emissions data, such as the U.S. National GHG Emissions Inventory, Energy Information Administration (EIA) data, and/or state data.
- Analyze records supporting emissions data which could include but is not limited to monitoring plans, QA/QC plans, calibration records, fields logs, company records, and calculations.
- Develop verification algorithms that will be conducted on each facility report by the data reporting system.
- Develop statistical approaches to be used across source categories to verify data and identify potential errors.
- Prepare scatter charts and other visual displays comparing key parameters (e.g., production versus emissions) for all of the facilities within a subpart.
- Design and/or maintain statistical analysis software tool used to verify data.
- Identify facilities that have discontinued reporting to the GHGRP without a valid reason; contact
  facilities and answer facility questions about reporting requirements and process; conduct research
  on facilities that may have shut down or changed ownership; propose and develop standard
  operating procedures for EPA to help facilities overcome common obstacles to reporting; and track
  the progress of facilities towards full compliance.
- Using outside datasets and publication, industry knowledge, and data analysis results, identify facilities that appear to be subject to the GHGRP but have not submitted reports. Track all research efforts, analysis results, and outreach activities in a systematic fashion.
- Draft technical memoranda and other analytic material outlining technical efforts and findings for distribution to EPA Regional Offices to support potential enforcement actions.
- Support selected field audits or provide technical data in support of EPA regional offices.

## C. Policy and Program Support

- The Contractor shall provide technical and administrative support for information collection requests, rulemakings, including technical and economic analyses to support policies; supporting development of preamble and rule language; developing and organizing materials for public dockets; supporting development of technical or support documents and regulatory impact assessments; providing support for public hearings; and supporting compilation, analysis, and responses to public comments received on rulemakings.
- 2. The Contractor shall identify, develop, analyze, and evaluate domestic and international measures, research, projections, policies, programs, mechanisms and activities to mitigate emissions of GHGs. For example, The Contractor shall analyze institutional barriers to implementing climate policies, and assess the effectiveness of country-specific institutions to perform functions called for under the UNFCCC; assess effectiveness of national communications produced by developing and Economies in Transition (EIT) countries; and/or identify, develop and analyze policy options and guidance such as opportunities for state and local or international governments to simultaneously enhance domestic energy supplies and meet air quality goals.
- 3. The Contractor shall support implementation, program maintenance, stakeholder support and communications of the partnership programs and efforts to reduce non-CO<sub>2</sub> greenhouse gases.
- 4. The Contractor shall assess the applicability of technologies and techniques for GHG mitigation and recovery at different operations; analyzing the potential to adapt existing technologies for application at specific sites; assessing the economics feasibility and the applicability of available technologies and techniques for maximizing the mitigation and recovery for a variety of uses; and evaluating the full range of technical issues

related to expanding the mitigation and/or recovery from various operations at specific sites or specific regions and countries. The Contractor shall also assess related components of the gas recovery technology, such as construction techniques, local resources available for such projects, or novel applications of existing technologies. The Contractor shall evaluate the impact of such factors as potential trends in energy prices, carbon pricing, access to investment capital, trends in interest rates, tax policies, and economic/financial risks on a potential project's feasibility.

5. The Contractor shall provide administrative and technical support to EPA for Global Methane Initiative (GMI) activities. GMI is an international initiative that advances cost-effective, near-term methane abatement and recovery and the use of methane as a clean energy source. EPA plays a key role in the GMI, sharing technical expertise and performing administrative tasks through the GMI secretariat. To assist EPA's GMI activities, the Contractor shall provide EPA with meeting support, general administrative support, and support for outreach activities. The Contractor will also provide EPA technical expertise and support for a range of GMI activities under each sector subcommittee, including development of technical workshops, inventories, feasibility studies, specific sector country-wide resource assessments, and other support to EPA sector teams. More information about GMI sectors, partner countries, and activities is available at <a href="https://www.globalmethane.org">www.globalmethane.org</a>.

## D. Communication and Training

- 1. The Contractor shall support capacity building for the design and operation of effective GHG reporting and data analysis and reduction programs across key sectors. The Contractor shall assist in implementation of capacity-building efforts internationally including technical educational sessions and potential direct technical assistance. The Contractor shall develop, assess and update tools (e.g. software, planning templates, etc.) and materials (e.g. training webinars, fact sheets, etc.) to share best practices, facilitate compilation of GHG information and related emissions/economic analyses. The Contractor shall support EPA in development and implementation of communication on available tools and materials. The Contractor shall identify regional GHG inventory, reporting, economics, mitigation technology experts and institutions to support knowledge exchange on best practices, apply tools and implement technical assistance in key sectors. The Contractor shall support organization and planning of EPA and partner (e.g. other USG and relevant international organization) capacity building regional and focused technical outreach sessions.
- 2. The Contractor shall support developing information and communication products for a variety of audiences. Contractor support will include content development for a number of platforms including website pages, interactive web modules, print products, user-friendly dashboards, developer-friendly application programming interfaces, mobile applications, and webinar support. This task can include drafting copy, copyediting, design lay-out, preparation of graphics and video, identification of appropriate photos, translation where needed (e.g., Spanish, Chinese, Russian, Arabic, etc), and all other activities necessary to finalizing materials for print and web publication. The outreach materials and activities will support EPA's websites as well as EPA's participation in expert meetings, workgroup meetings, conferences, colloquia, workshops, training programs, webinars, public events, general outreach and education efforts, and other venues. In anticipation of continual and fast-paced development in Web applications, social media, data presentation, and computer infrastructure, this task requires that the Contractor apprise EPA of emerging technologies and approaches that could be employed to improve communication efforts. This task may include aggregating confidential business information.
- 3. (Optional)The Contractor shall support maintenance, revision, and expansion of the existing Greenhouse Gas Program websites, and associated partnership program websites by providing web-content development and

updates to effectively communicate ongoing programmatic, regulatory, communications, science, policy and education efforts. This web maintenance and update activity will require: superior understanding of EPA's existing web content, web standards, and Drupal content management system; ability to draft high-quality textual and graphical content for EPA review and approval; expertise in web navigation, usability, and design; and ability to coordinate, with technical direction from the COR, with internal and external data and information providers for use in materials. The Contractor shall ensure that each Web-ready item produced is Section 508- compliant, and will have tagging or metadata consistent with EPA standards and requirements, and to optimize search results.

- 4. The Contractor shall assist EPA in organizing and conducting study tours for interested delegations for the Global Methane Initiative. These study tours may include site visits to one or more sites in the US or internationally as appropriate. Elements of this activity include development of an itinerary / agenda, identification of appropriate persons to accompany the delegations, and logistical elements associated with implementing the study tour (i.e. transportation, logistics, etc.). In some cases these tours will be held in conjunction with technology transfer workshops or other classroom sessions.
- The Contractor shall develop questions, designs, wireframes or other material for soliciting comments from stakeholders or focus groups regarding needs, uses, and preferences for data presentation and publication.
   The Contractor shall collect comments from stakeholders and summarize the feedback for EPA review.
- 6. The Contractor shall present design options for displaying data. Design options may include dynamic features such as search and filter criteria that would allow users to develop specific searches. The design options may also include mapping and/or dashboard components.
- 7. (Optional)The Contractor shall develop, enhance, and/or maintain any EPA data publication tools or instruments. The Contractor shall perform updates of these tools, including updating the data publication tools using electronic file extracts (e.g., XML files) from the data system; develop and maintain a Data Publication Engine to extract information from the reporting database and apply summary routines or other transformations to present the data logically and clearly.
- E. <u>Development of Data Systems and Information Technology</u>
- (Optional)The Contractor shall support the development of an efficient electronic system to transfer data
  into the appropriate categorization for the UNFCCC Common Reporting Format (CRF) Reporter in generating
  the U.S. CRF tables. The Contractor shall integrate current data collection and storage procedures with the
  new CRF Reporter database reporting system developed by the UNFCCC. The Contractor shall complete
  further investigations and support for alternative data storage systems.
- 2. (Optional)The Contractor shall support the development of the electronic database systems for collection and archiving of annual national greenhouse gas inventory data. The Contractor shall refine existing data element architecture, improve interface for query developments, and prioritize data element relationships. The Contractor shall support interface published on EPA's website allowing external, public users access to underlying national greenhouse gas inventory data and graphical tools.

- 3. (Optional)The Contractor shall support the operation of a GMI Customer Relationship Management (CRM) data system for tracking all GMI activities.
- 4. (Optional)The Contractor shall support the development and modernization of the Greenhouse Gas Reporting Program's electronic greenhouse gas data system, commonly referred to as e-GGRT. This is a web-based reporting tool and related systems (e.g. Inputs Verifier Tool, integrated Verification Process) that is housed at EPA and currently hosted at EPA's National Computing Center (NCC). The Contractor shall perform activities in support of the continued development of this data system, gathering data and business requirements and other information for source categories, and updating the system architecture and database as appropriate to support annual reporting cycles under Part 98 and year to year changes of data and business requirements. The database contains Confidential Business Information (CBI). The Contractor will be required to manage CBI, and information subject to relevant Agency and federal information security guidelines, practices, and procedures. The activities supporting e-GGRT include but are not limited to:
  - Support efforts to reduce duplicate State/Federal GHG reporting burden and State/Federal GHG reporting and data exchange harmonization.
  - Coordinate with other EPA reporting programs and databases such as the Central DataExchange (CDX), the Facility Registry System (FRS), Clean Air Markets Division Business System (CBS), and others.
  - Conduct enhancements of the data base. Coordinate with the NCC to deploy updates to the system.
  - Analyze and develop a reasonable range of emissions for source categories; prepare statistical tests to determine areas for reporting errors.
  - Support training on all elements/modules of the reporting tool, develop, maintain and update user guides, training material, help content, frequently asked questions, and other documents to assist data system users.
  - Provide technical help-desk assistance to assist reporters with data reporting problems including passwords, data entry, ID proofing, and address technical questions, etc. All responses to inquiries shall contain EPA approved information. At no time shall contractor staff respond with opinions, whether they be the personal opinions of the contractor staff members, the opinions of the contractor as a corporate entity, or the personal opinions of government officials or representatives who have assisted in providing the response. Contractor staff shall be especially alert to insure that opinions concerning EPA policy and policy interpretations of regulations are not part of any response to persons seeking assistance. Questions in this regard should be addressed to the government contracting officer or Contracting Officer's Representative (COR).
  - Implement or support implementation of system compliance with Agency and Federal Information Technology (IT) standards including but not limited to maintaining system documentation, National Institute of Standards and Technology (NIST) controls (Federal Information Security Modernization Act), 508 accessibility, System Security Plan, Capital Planning and Investment Control performance metrics.
  - Prepare and design reports for publication of emissions activity (for example by geographic areas, by sector types, by gas, by size of facility output, intensity.). Prepare, and update, as appropriate Extract, Translate, and Load (ETL) scripts to scrutinize/redact Confidential Business Information (CBI) data, and transform the data into a structure more amenable to publication and search.
  - Provide support for deploying statistical analysis and business intelligence software tools used to
    verify and analyze data as it is developed and once it is deployed; design user-friendly interfaces and
    reports for conducting tests and analyzing data outputs; conduct standard maintenance and

- enhancement of statistical software and business intelligence tool.
- Update the production data system incorporating commercial-of-the-shelf or open-source tools as
  needed, include but not limited to, programming the production data system application, web
  services, database schema and procedures, extensions and supporting applications for administration
  and help; providing unit, system and load testing for the data system staging and production;
  providing a means of tracking issues and resolution in development and production; and publishing
  the results through EPA web site(s).
- Provide technical assistance, planning and implementation support to modernize the data system over time, to improve system stability, security, availability, data access and usability.
- Support e-GGRT related EPA e-Enterprise efforts that may impact the Greenhouse GasReporting Program, for example back-end data integration with other EPA Air or Agency programs, consolidation of facility attribute data including Part 98 attributes across Agency programs.
- F. Operation and Maintenance of Data Systems and Information Technology
  - The Contractor shall operate and maintain information technology systems including applications, databases and related services.
    - Deploy and maintain all Reporting Year versions of customer reporting forms, customer relationship management software, e-GGRT, and other Information Technologyresources;
    - Deploy and maintain e-GGRT User Registration, Facility Registration, Correspondence Tool, Help Desk tools, and the EPA Reports area of the application;
    - Coordinate with NCC and other counterparts for hosting, application deployments, and database updates;
    - Maintain accounts needed to access NCC servers;
    - Maintain documentation of each e-GGRT build;
    - Update systems to accommodate new software versions, patches, and to respond to security issues;
    - Provide on-call support for application and database-related operations issues;
    - Provide environments to allow testing of the application by various stakeholders; and
    - Notify EPA personnel immediately of unplanned outages or latency.

# G. General

1. The Contractor shall provide a full range of logistical services in support of EPA sponsored meetings and conferences both domestically and internationally, including those meetings in support of the GMI. The Contractor shall identify and manage contact with appropriate participants, facilitators, speakers, translators, and logistical assistants; provide beverages and food in accordance with Federal Appropriation law and EPA policy; secure meeting and conference facilities including supporting equipment; develop agendas in conjunction with the EPA to achieve the desired outcomes; provide facilitation support for meetings and conferences; prepare mailing lists, announcements, or notices via web or social media channels, to notify potential attendees of scheduled meetings and or conferences; coordinate travel arrangements for necessary experts; provide note-takers to record event proceedings through flip-charts and laptop-based recording methods; and finalize event proceedings for review, approval, and distribution to audiences specified by EPA. The Contractor

shall also support and facilitate virtual meetings using appropriate and cutting-edge software.

- 2. The Contractor shall conduct and prepare synopses of literature reviews through materials such as books, reports, journals, articles, conference proceedings, web pages, and unpublished documents. These reviews shall include preparation of bibliographies and accurate citations.
- 3. The Contractor shall conduct research and prepare reports in areas where literature searches do not provide sufficient information, and for other purposes such as to conduct industry survey scans of key activities and actors, and to summarize economic, scientific, technological, and environmental trends and advances. The Contractor shall analyze and report on trends in government, business, non-governmental organizations and other sectors that might affect EPA's domestic and international activities such as capacity building, policy and program development or implementation.
- 4. The Contractor shall coordinate and/or conduct peer review of technical reports, data, modeling or technical analyses, literature syntheses and other materials where peer review is desired and/or required to meet information quality objectives. The Contractor shall also provide support in documenting any additional information quality components of products (e.g. objectivity, transparency, accessibility etc.). Peer review shall be performed in accordance with EPA Peer Review Guidelines available at http://www2.epa.gov/osa/peer-review-handbook-4th-edition-2015.
- The Contractor shall develop and test survey instruments, analyze survey data to investigate subject matter described in this SOW. The Contractor shall provide all available data to the Contracting Officer's Representative (COR).
- 6. The Contractor shall support EPA efforts to ensure Information Quality by developing and/or implementing Quality Assurance and/or Quality Control plans (QA/QC) and conducting and documenting accuracy assessments.
- 7. The Contractor shall provide quick turn analysis and long term projects on an as needed basis.

Appendix A: Partial List of Current EPA Partnerships Programs:

Global Methane Initiative (GMI)

Climate and Clean Air Coalition (supported by NCPB)

US Canada Air Quality Agreement (supported by NCPB)

Natural Gas STAR

Coalbed Methane Outreach Program

AgSTAR

Landfill Methane Outreach Program

Voluntary Aluminum Industrial Partnership (VAIP)

SF6 Emission Reduction Partnership for Electric Power Systems (EPS)

Appendix B: List of GHGRP Source Categories

Subpart A - General Provisions
Subpart C - General Stationary Combustion Sources
Subpart D - Electricity Generation

Subpart E - Adipic Acid Production

Subpart F - Aluminum Production

Subpart G - Ammonia Manufacturing

Subpart H - Cement Production

Subpart I - Electronics Manufacturing

Subpart K - Ferroalloy Production

Subpart L - Fluorinated Gas Production

Subpart N - Glass Production

Subpart O - HCFC-22 Production and HFC-23 Destruction

Subpart P - Hydrogen Production

Subpart Q - Iron and Steel Production
Subpart R - Lead Production
Subpart S - Lime Manufacturing
Subpart T - Magnesium Production
Subpart U - Miscellaneous Uses of Carbonate
Subpart V - Nitric Acid Production
Subpart W - Petroleum and Natural Gas Systems
Subpart X - Petrochemical Production
Subpart Y - Petroleum Refineries
Subpart Z - Phosphoric Acid Production
Subpart AA - Pulp and Paper Manufacturing
Subpart BB - Silicon Carbide Production
Subpart CC - Soda Ash Manufacturing
Subpart DD - Electrical Transmission and Distribution Equipment Use
Subpart EE - Titanium Dioxide Production
Subpart FF - Underground Coal Mines
Subpart GG - Zinc Production
Subpart HH - Municipal Solid Waste Landfills
Subpart II - Industrial Wastewater Treatment
Subpart LL - Suppliers of Coal-based Liquid Fuels
Subpart MM - Suppliers of Petroleum Products
Subpart NN - Suppliers of Natural Gas and Natural Gas Liquids
Subpart OO - Suppliers of Industrial Greenhouse Gases
Subpart PP - Suppliers of Carbon Dioxide
Subpart QQ - Importers and Exporters of Fluorinated GHGs Contained in Pre-Charged Equipment or
Closed-Cell Foams
Subpart RR - Geologic Sequestration of Carbon Dioxide
Subpart SS - Electrical Equipment Manufacture or Refurbishment
Subpart TT - Industrial Waste Landfills
Subpart UU - Injection of Carbon Dioxide

# Appendix C: Partial List of Program websites

- Climate Change in the United States: Benefits of Action (CIRA site)
- Greenhouse Gas Emissions
- Climate Change Indicators in the United States
- Mitigation of Non-CO2 Greenhouse Gases
- Greenhouse Gas Reporting Program

# Appendix D: List of relevant statutes and publications

### Clean Air Act

Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Eds., 2014: *Climate Change Impacts in the United States: The Third National Climate Assessment*. U.S. Global Change Research Program, 841 pp. doi:10.7930/J0Z31WJ2.

IPCC AR5: https://www.ipcc.ch/report/ar5/index.shtml

EPA. 2015. Climate Change in the United States: Benefits of Global Action. United States Environmental Protection Agency, Office of Atmospheric Programs, EPA 430-R-15-001. www.epa.gov/cira

U.S. Environmental Protection Agency. 2014. Climate change indicators in the United States, 2014. Third edition. EPA 430-R-14-004. www.epa.gov/climatechange/indicators.

NAS. 2010. *Advancing the Science of Climate Change*. National Academy of Sciences. DOI 10.17226/12782. http://nap.edu/12782

USGCRP, 2016: *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Crimmins, A., J. Balbus, J. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M. Hawkins, S.C. Herring, L. Jantarasami, D. Mills, S. Saha, M. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC. health2016.globalchange.gov

# **Cybersecurity and Protecting Sensitive Information**

The tasks which are applicable to this requirement are indicated below:

TASK	TITLE	APPLICABLE
A	Personally Identifiable Information Contract Closeout	X
В	Contractor Return of all EPA-Provided and EPA-Activity-Related	X
	Information	
C	Verified Secure Destruction of All EPA-Provided and EPA-Activity-	X
	Related Information	
D	Contractor Return of all EPA-Owned and Leased Computing and	X
	Information Storage Equipment	
E	Authority to Operate (ATO) Suspension or Revocation	X
F	Security Monitoring and Alerting Requirements	X
G	IT Security and Privacy Awareness Training	X
H	Specialized Information Security Training for Staff with Significant	X
	Security Responsibilities	
I	Federal Reporting Requirements	X
J	Protecting Sensitive Information	X
K	Security Assessment and Authorization (SA&A)	X
L	Contractor System Oversight/Compliance	X
M	Contractor Access to EPA IT Systems	X
N	Individual Notification for Personally Identifiable Information	X
0	Credit Monitoring and Identity Protection	X
P	Compliance with IT Security Policies	X
Q	Secure Technical Implementation	X

]	R	Internet Protocol Version 6 (IPv6)	X
	S	Cloud Service Computing	
	Т	Contract Performance Information and Testimony	X
1	U	Rehabilitation Act Section 508 Standards	X
19	V	Termination for Default - Failure to Report Information Security Incident	X

### Task Key:

rusk key.	
Contract Type	Required Tasks
IT Hardware	A,B,C,F,G,H,I,J,K,M,P,Q,R,T,U,V
IT Software	A,F,H,I,J,K,L,M,P,Q,R,T,U,V
Green IT	A,B,C,E,F,H,I,J,K,M,P,Q,R,U,V
IT Services	A,B,C,D,E,G,H,I,J,L,M,O,P,Q,T,U,V
Data Center Services	A,B,C,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,T,U,V
Cloud Computing	A,B,C,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V
Cyber Security Product and Services	A,B,E,F,G,H,I,J,K,L,M,O,P,Q,R,T,V

The full text of the tasks are described, as follows:

# Task A - Personally Identifiable Information Contract Closeout

- (a) Definition. Personally Identifiable Information (PII) as defined in OMB Memorandum M-07-16, Safeguarding Against and Responding to the Breach of Personally Identifiable Information, PII refers to sensitive information that can be used to distinguish or trace an individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual.
- (b) Certification of Sanitization of EPA-provided and EPA-Activity-Related Files and Information (including but not limited to all records, files, and metadata in electronic or hardcopy format). As part of contract closeout, the Contractor shall submit a Certification of Sanitization of EPA-provided and EPA-Activity-Related Files and Information to the Contracting Officer and the Contracting Officer's Representative (COR) following the template provided in Appendix G of National Institute of Standards and Technology (NIST) Special Publication 800-88, Guidelines for Media Sanitization Revision 1, which assesses risk associated with Personally Identifiable Information (PII) that was generated, maintained, transmitted, stored or processed by the Contractor. The Senior Agency Official for Privacy (SAOP) shall review the Certification and coordinate with the Contracting Officer and the COR.
- (c) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

## Task B - Contractor Return of all EPA-Provided and EPA-Activity-Related Information

(a) Within thirty (30) days (or a different time period approved by EPA) of an EPA request, or after the end of the contract performance period, the Contractor must return all originals of all EPA-provided and EPA-Activity-Related Information (including but not limited to all records, files, and metadata in electronic or hardcopy format). The Contractor must return originals obtained while conducting activities in accordance with the contract with EPA; or distributed for any purpose by the Contractor to any other related organization and/or any other component or separate business entity; or received from the Contractor by any other related organization and/or any other component or separate business entity. Contractors must return all originals so that they cannot be used for further business by Contractor.

- (b) Concurrent with the return of all originals as set forth in paragraph (a), the Contractor must document to the EPA the return of all originals of all EPA-provided and EPA-Activity-Related Information (including but not limited to all records, files, and metadata in electronic or hardcopy format). The Contractor must document originals obtained while conducting activities in accordance with the contract with EPA; or distributed for any purpose by the Contractor to any other related organization and/or any other component or separate business entity; or received from the Contractor by any other related organization and/or any other component or separate business entity.
- (c) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

# Task C - Verified Secure Destruction of All EPA-Provided and EPA-Activity-Related Information

- (a) Within 60 days after the end of the contract performance period or a time period approved by EPA, or after the contract is suspended or terminated by EPA for any reason, and after EPA has accepted and approved the Contractor's return of information, the Contractor must execute secure destruction (either by the Contractor or third-party firm approved in advance by EPA) of all existing active and archived originals and/or copies of all EPA-provided and EPA-activity-related files and information (including but not limited to all records, files, and metadata in electronic or hardcopy format). This information includes but is not limited to information obtained by the Contractor while conducting activities in accordance with the contract with EPA; or distributed for any purpose by the Contractor to any other related organization and/or any other component or separate business entity; or received from the Contractor by any other related organization and/or any other component or separate business entity. Destruction Methods shall be by procedures approved by EPA in advance in writing.
- (b) Within 75 days after the end of the contract performance period or a time period approved by EPA, or after the contract is suspended or terminated by EPA for any reason, and after EPA has accepted and approved the Contractor's return of information, the Contractor must document to the EPA the secure destruction of all existing active and archived originals and/or copies of all EPA-provided and EPA-activity-related files and information, (including but not limited to all records, files, and metadata in electronic or hardcopy format). This information includes but is not limited to information obtained by the Contractor while conducting activities in accordance with the contract with EPA; or distributed for any purpose by the Contractor to any other related organization and/or any other component or separate business entity; or received from the Contractor by any other related organization and/or any other component or separate business entity. Destruction Methods shall be by procedures approved by EPA in advance in writing.
- (c) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

# Task D - Contractor Return of all EPA-Owned and Leased Computing and Information Storage Equipment

- (a) Within 60 days (or a different time period approved by EPA) after the end of the contract performance period, the Contractor must return all EPA-owned and leased computing and information storage equipment to EPA.
- (b) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

# Task E - Authority to Operate (ATO) Suspension or Revocation

## (a) Definitions.

(i) Authority to Operate (ATO) - Signed by the Agency chief information officer (CIO) or deputy CIO, ATOs are issued for all information systems that input, store, process, and/or output Government information. In order to be granted an ATO, all federal information systems must be compliant with National Institute of Standard and Technology (NIST) Special Publication (SP) 800-53, Security and Privacy Controls for Federal Information Systems and Organizations, and FIPS Publication 200, Minimum Security Requirements for Federal Information and Information Systems. Contractors whose internal information systems will process Sensitive Information incidental to Agency product or service development must meet requirements for NIST SP 800-171, Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations, instead of NIST SP 800-53.

(ii) Information Security Incident - an occurrence that results in actual or potential jeopardy to the confidentiality, integrity, or availability of an information system or the information the system processes, stores or transmits, or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use policies. The Contractor must report all known Information Security Incidents if they involve Sensitive Information.

(iii) Sensitive Information - As defined in NIST SP 800-53, Security and Privacy Controls for Federal Information Systems and Organizations, Sensitive Information is any information where the loss, misuse or unauthorized access to, or modification of, could adversely affect the national interest or the conduct of federal programs, or the privacy to which individuals are entitled under 5 U.S.C. Section 552a (the Privacy Act), but that has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept classified in the interest of national defense or foreign policy. Sensitive Information is subject to stricter handling requirements than non-sensitive information because of the increased risk if the data are compromised. Some categories of Sensitive Information include Financial, Medical or Health, Legal, Strategic and Business, Human Resources, Personally Identifiable Information (PII), and Sensitive PII. These categories of information require appropriate protection as stand-alone information and may require additional protection in aggregate.

- (b) In the event of an Information Security Incident, the Government may suspend or revoke an existing ATO (either in part or in whole). If an ATO is suspended or revoked in accordance with this requirement, the Contracting Officer may direct the Contractor to take additional security measures to secure Sensitive Information. These measures may include restricting access to Sensitive Information on the Contractor information technology (IT) system under this contract. Restricting access may include disconnecting the system processing, storing, or transmitting the Sensitive Information from the Internet or other networks or applying additional security controls.
- (c) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

### Task F - Security Monitoring and Alerting Requirements

(a) All Contractor-operated systems that use or store EPA information must meet or exceed EPA policy requirements pertaining to security monitoring and alerting. All systems are subject to the requirements of existing federal law, policy, regulation and guidance (e.g., Federal Information Security Management Act of 2002). The Contractor must comply with the EPA-used <u>Department of Homeland Security (DHS) Continuous Diagnostics</u>

and Mitigation (CDM) policy for security monitoring and alerting, which includes requirements not limited to:

- (1) System and Network Visibility and Policy Enforcement at the following levels:
  - (i) Edge
  - (ii) Server / Host
  - (iii) Workstation / Laptop / Client
  - (iv) Network
  - (v) Application
  - (vi) Database
  - (vii) Storage
  - (viii) User
- (2) Alerting and Monitoring
- (3) System, User, and Data Segmentation
- (b) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

# Task G - IT Security and Privacy Awareness Training

- (a) The Contractor must ensure that all Contractor personnel complete EPA-provided mandatory security and privacy training prior to gaining access to EPA information systems. Non-compliance may result in denial of system access.
- (b) The Contractor must ensure that all Contractor personnel complete security and privacy refresher training on an annual basis. EPA will provide notification and instructions to the Contractor on completing this training.
- (c) The Contractor must ensure that each Contractor employee review and sign the *EPA Rules of Behavior* pertaining to appropriate use of EPA information systems prior to gaining access to EPA information systems. The Contractor must also ensure that each Contractor employee reviews these *EPA Rules of Behavior* at least annually. EPA will provide notification to the Contractor when these reviews are required.
- (d) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

### Task H - Specialized Information Security Training for Staff with Significant Security Responsibilities

(a) The Contractor must ensure that Contractor personnel with significant information security responsibilities complete specialized information security training based on the requirements defined in the EPA role-based training program (program provided after Contract award). The objective of the information security role-based training is to develop an EPA information security workforce with a common understanding of the concepts, principles, and applications of information security to ensure the confidentiality, integrity and availability of EPA's information and information systems. The Contractor is required to report training completed to ensure competencies are addressed. The Contractor must ensure employee training hours are satisfied in accordance with EPA Security and Privacy Training Standards (provided after Contract award). The Contracting Officer's Representative (COR) will provide additional information for specialized information security training based on the

requirements in paragraph (b).

(b) The following role-based requirements are provided:

[Program office adds role-based requirements; otherwise write "none" or "not applicable"]

- (c) The Contractor must ensure that all IT and Information Security personnel receive the necessary technical (for example, operating system, network, security management, and system administration) and security training to carry out their duties and maintain certifications.
- (d) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

# **Task I - Federal Reporting Requirements**

- (a) Contractors operating information systems on behalf of EPA must comply with Federal Information Security Modernization Act (FISMA) 44 USC Section 3541 reporting requirements. Annual and quarterly data collection will be coordinated by EPA. Contractors must provide EPA with the requested information based on the timeframes provided with each request. Contractor systems must comply with monthly data feed requirements as coordinated by EPA. Reporting requirements are determined by the Office of Management and Budget (OMB), and may change for each reporting period. The Contractor will provide the EPA Contracting Officer's Representative (COR) with all information to fully satisfy FISMA reporting requirements for Contractor systems.
- (b) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

# Task J - Protecting Sensitive Information

- (a) Definitions.
  - (1) Sensitive Information.

As defined in National Institute of Standards and Technology Special Publication (NIST SP) 800-53, *Security and Privacy Controls for Federal Information Systems and Organizations*, Sensitive Information is any information where the loss, misuse or unauthorized access to, or modification of, could adversely affect the national interest or the conduct of federal programs, or the privacy to which individuals are entitled under 5 U.S.C. Section 552a (the Privacy Act), but that has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept classified in the interest of national defense or foreign policy. Sensitive Information is subject to stricter handling requirements than non-sensitive information because of the increased risk if the data are compromised. Some categories of Sensitive Information include Financial, Medical or Health, Legal, Strategic and Business, Human Resources, Personally Identifiable Information (PII), and Sensitive PII. These categories of information require appropriate protection as standalone information and may require additional protection in aggregate.

(2) Personally Identifiable Information (PII).

PII, as defined in <u>OMB Memorandum M-07-16</u>, Safeguarding Against and Responding to the Breach of Personally Identifiable Information, refers to sensitive information that can be used to distinguish or trace an

individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual. The definition of PII is not anchored to any single category of information or technology. Rather, it requires a case-by-case assessment made by the EPA Privacy Officer of the specific risk that an individual can be identified. Non-PII can become PII whenever additional information that is publicly available — in any medium and from any source — is or can be combined to identify an individual. As an example, PII includes a name and an address because it uniquely identifies an individual, but alone may not constitute Sensitive PII.

# (3) Sensitive PII.

Sensitive PII refers to personally identifiable information that can be used to target, harm, or coerce an individual or entity, assume or alter an individual's or entity's identity, or alter the outcome of an individual's or entity's activities. Sensitive PII requires stricter handling than PII because of the increased risk to an individual or associates if the information is compromised. Some categories of Sensitive PII include standalone information, such as Social Security numbers (SSN) or biometric identifiers. Other information such as a financial account, date of birth, maiden names, citizenship status, or medical information, in conjunction with the identity of an individual (directly or indirectly inferred), are also considered Sensitive PII. In addition, the context of the information may determine whether it is sensitive, such as a list of employees with poor performance ratings or a list of employees who have filed a grievance or complaint.

- (b) Authorization to Use, Store, or Share Sensitive Information.
  - (1) Through the Contracting Officer, the Contractor must obtain written approval by the Chief Information Officer (CIO) or designee prior to the use or storage of EPA Sensitive Information or sharing of EPA Sensitive Information by the Contractor with any subcontractor, person, or entity other than the EPA.
  - (2) The Contractor shall not remove Sensitive Information from approved location(s), electronic device(s), or other storage systems, without prior approval of the CIO or designee obtained through the Contracting Officer.
- (c) Information Types. Sensitive Information includes PII, which in turn includes Sensitive PII. Therefore, all requirements for Sensitive Information apply to PII and Sensitive PII, and all requirements for PII apply to Sensitive PII.
- (d) Information Security Incidents. An Information Security Incident is an occurrence that results in actual or potential jeopardy to the confidentiality, integrity, or availability of an information system or the information the system processes, stores or transmits, or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use policies. The Contractor must report all known Information Security Incidents if they involve Sensitive Information.
  - (1) Information Security Reporting Requirements.
    - (i) The Contractor must report all Information Security Incidents and Privacy Breaches in accordance with the requirements below, even if it is believed the Incident may be limited, small, or insignificant. An information security report shall not, by itself, be interpreted as evidence that the Contractor has failed to provide adequate information security safeguards for Sensitive Information or has otherwise failed to meet contract requirements.
    - (ii) The Contractor must report via email all Information Security Incidents and Privacy Breaches to the EPA Service Helpdesk immediately, but not later than 30 minutes, after becoming aware of the Incident.

The Contractor shall email the EPA Service Helpdesk at <u>CSIRC@epa.gov</u>, and shall also email the Contracting Officer and Contracting Officer Representative (COR). If the Contractor fails to report in 30 minutes, specific Government remedies may include termination in accordance with EPA Requirement *Termination for Default – Failure to Report Information Security Incident*.

- (iii) The types of information required in an Information Security Incident and Privacy Breach reports include: Contractor name and point-of-contact (POC) information, Contract number; the type, amount and description of information compromised; and incident details such as location, date, method of compromise, and impact, if known.
- (iv) The Contractor shall not include any Sensitive Information in the subject or body of any e-mail. To transmit Sensitive Information, the Contractor shall use Federal Information Processing Standards (FIPS) 140-2 compliant encryption modules to protect Sensitive Information in attachments to email.
- (v) If applicable, the Contractor must also provide supplemental information or reports related to a previously reported incident directly to the Contracting Officer, COR and EPA Service Helpdesk at <a href="Mailto:CSIRC@epa.gov">CSIRC@epa.gov</a>. The Contractor shall include any related ticket numbers in the subject line of the email.
- (2) Information Security Incident Response Requirements.
  - (i) All determinations related to Information Security Incidents and Privacy Breaches, including response activities, notifications to affected individuals and related services (e.g., credit monitoring and identity protection) will be made in writing by authorized EPA officials at EPA's discretion and communicated by the Contracting Officer.
  - (ii) The Contractor must provide full access and cooperation for all activities determined by EPA to be required to ensure an effective Incident Response, including providing all requested images, log files, and event information to facilitate rapid resolution of Information Security Incidents. The Contractor shall maintain the capabilities to: determine what sensitive information was or could have been accessed and by whom, construct a timeline of user activity, determine methods or techniques used to access the information, identify the initial attack vector, and remediate and restore the protection of information. The Contractor is required to preserve all data, records, logs and other evidence that are reasonably necessary to conduct a thorough investigation of the Information Security Incident.
  - (iii) The Contractor is responsible for performing Incident and Privacy Breach Response activities required by EPA, including but not limited to inspections, investigations, forensic reviews, data analyses and processing by EPA and EPA OIG personnel and others on behalf of EPA. As requested by the Contracting Officer, the Contractor may provide technical support for the Government's final determinations of responsibility activities for the Incident and/or liability activities for any additional Incident Response activities (e.g., possible restitution calculation to affected individuals).
  - (iv) EPA, at its sole discretion, may obtain the assistance of Federal agencies and/or third-party firms to aid in Incident Response activities.
  - (v) The Contractor is responsible for all costs and related resource allocations required for all subsequent Incident Response activities determined to be required by EPA.
- (e) Contractor Plan for Protection of Sensitive Information. The Contractor is responsible for the proper handling and protection of Sensitive Information to prevent unauthorized disclosure. Upon contract award, the Contractor shall develop and maintain a documentation plan addressing the following minimum requirements regarding the protection and handling of Sensitive Information:
  - (1) Proper marking, control, storage and handling of Sensitive Information residing on electronic media, including computers and removable media, and on paper documents.

- (2) Proper control and storage of mobile technology, portable data storage devices, and communication devices.
- (3) Proper use of Federal Information Processing Standards (FIPS) 140-2 compliant encryption modules to protect Sensitive Information while at rest and in transit throughout EPA, Contractor, and/or subcontractor networks, and on host and client platforms.
- (4) Proper use of FIPS 140-2 compliant encryption modules to protect Sensitive Information in email attachments, including policy that passwords must not be communicated in the same email as the attachment.
- (5) Information Security Incidents. The Contractor shall report to the Government any security incident involving Personally Identifiable Information (PII) of which it becomes aware.
- (6) Contractor Access to EPA IT Systems. The Contractor shall configure their network to support access to government systems (e.g., configure ports and protocols for access).
  - (a) Requirement for Business to Government (B2G) network connectivity. The Contractor will connect to the B2G gateway via a Contractor-procured Internet Service Provider (ISP) connection and assume all responsibilities for establishing and maintaining their connectivity to the B2G gateway. This will include acquiring and maintaining the circuit to the B2G gateway and acquiring a FIPS-140-2 Virtual Private Network (VPN)/Firewall device compatible with the Agency's VPN device. Maintenance and repair of contractor procured VPN equipment shall be the responsibility of the Contractor.
  - (b) Dial-Up ISP Connections are not acceptable.
  - (c) The Contractor must comply with the Agency's Guidance regarding allowable ports, protocols and risk mitigation strategies (e.g. File Transfer Protocol or Telnet).
- (7) IT Security and Privacy Awareness Training. The Contractor must ensure annual security education, training, and awareness programs are conducted for their employees performing under the subject contract that addresses, at a minimum, physical security, acceptable use policies, malicious content and logic, and non-standard threats such as social engineering for their employees. The Contractor must also ensure employees performing under the subject contract receive the Agency's initial and annual information security awareness training.
- (8) The Contractor must not conduct default installations of "out of the box" configurations of Commercially Off the Shelf (COTS) purchased products. The contractor shall configure COTS products in accordance with EPA, NIST, Defense Information Systems Agency (DISA) Security Technical Implementation Guides (STIGs) or Center for Internet Security (CIS) standards. Standards are listed in order of precedence for use. If standards do not exist from one of these sources, the contractor shall coordinate with EPA to develop a configuration.
- (f) Subcontract flowdown. The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

#### Task K - Security Assessment and Authorization (SA&A)

(a) The Contractor is required to undergo Security Assessment and Authorization (SA&A); i.e., the process by which

a federal agency examines its information technology infrastructure and develops supporting evidence necessary for security assurance accreditation, prior to using information systems to access and/or store Government information, potentially including Sensitive Information. The Contractor's facilities must also meet the security requirements for "moderate confidentiality impact" as defined by the Federal Information Processing Standards (FIPS) 199 publication Standards for Security Categorization of Federal Information and Information Systems.

- (b) For all information systems that will input, store, process, and/or output Government information, the contractor shall obtain an Authorization to Operate (ATO) signed by the Chief Information Officer (CIO) from the Contracting Officer (working with the Contracting Officer's Representative (COR)) before using EPA information in the system. The contractor may be able to obtain an Authorization to Test from the SIO for the office obtaining services that will allow use of EPA information in certain circumstances to facilitate system development or implementation. Before a federal information system can be granted an ATO, it must be compliant with National Institute of Standard and Technology (NIST) SP 800-53, Security and Privacy Controls for Federal Information Systems and Organizations, and FIPS Publication 200, Minimum Security Requirements for Federal Information and Information Systems. Contractors whose internal information systems will process Sensitive Information incidental to Agency product or service development must meet requirements for NIST SP 800-171, Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations (instead of NIST SP 800-53) in order to be granted an ATO.
- (c) FIPS 199 moderate confidentiality impact must be utilized for Contractor information technology (IT) systems and security control baseline requirements.
- (d) Prior to Agency SA&A activities, the COR must complete a Privacy Threshold Analysis (PTA) for all IT systems. Then the COR must provide the completed PTA to the EPA Privacy Officer for a determination of whether a Privacy Impact Assessment (PIA) is required. If a determination is made that a PIA is required, it will be completed by EPA in accordance with EPA PIA Template instructions.
- (e) The Contractor is responsible for preparing SA&A documentation with the use of EPA tools and security documentation templates including System Security Plan, Security Assessment Report, Contingency Plan, and Incident Response Plan. The Contractor must follow federally mandated SA&A and Risk Management Framework (RMF) processes throughout the IT system lifecycle process to ensure proper oversight by EPA. RMF modifies the traditional Certification and Accreditation process and integrates information security and risk management activities into the system development life cycle.
- (f) The Contractor must submit SA&A documentation as defined in paragraph (e) to the COR at least 60 days before the ATO expiration date.
- (g) The Contractor shall fix or mitigate system or security vulnerabilities within a time frame commensurate with the level of risk (as identified by the EPA and Contractor) they present:
  - High Risk = 2 business days from vulnerability notification from contractor
  - Moderate Risk = 7 business days from vulnerability notification from contractor
  - Low Risk = 30 business days from vulnerability notification from contractor
- (h) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

## Task L - Contractor System Oversight/Compliance

- (a) Pursuant to National Institute of Standards and Technology Special Publication (NIST SP) 800-53 Rev 4, the EPA and GAO have the authority to conduct site reviews for compliance validation and will conduct security reviews on a periodic and event-driven basis for the life of the contract. Full cooperation by the Contractor is required for audits and forensics.
- (b) The Contractor shall provide EPA access to the Contractor's facilities, installations, operations, documentation, databases, information technology (IT) systems and devices, and personnel used in performance of the contract, regardless of the location. The Contractor shall provide access to the extent required, in EPA's judgment, to conduct an inspection, evaluation, investigation or audit, including vulnerability testing to safeguard against threats and hazards to the integrity, availability and confidentiality of agency data or to the function of information technology systems operated on behalf of agency, and to preserve evidence of information security incidents. This information shall be available to the EPA upon request.
- (c) All Contractor systems used in the performance of the contract must comply with Information Security Continuous Monitoring (ISCM) and Reporting as identified in OMB Memorandum M-14-03, Enhancing the Security of Federal Information and Information Systems. In addition, EPA reserves the right to perform ISCM and IT security scanning of Contractor systems with tools and infrastructure of EPA's choosing.
- (d) All Contractor systems used in the performance of the contract must perform monthly vulnerability scanning as defined by EPA IT and Security Policy, and the Contractor must provide scanning reports to the Contracting Officer, who will forward them to the EPA CIO or designee on a monthly basis.
- (e) All Contractor systems used in the performance of the contract must participate in the implementation of automated security controls testing mechanisms and provide automated test results in Security Compliant Automation Protocol (SCAP) compliant data to the Contracting Officer, who will forward to the EPA CIO or designee on a monthly basis.
- (f) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

## Task M - Contractor Access to EPA IT Systems

- (a) Immediately following contract award, the Contractor shall provide to the Contracting Officer's Representative (COR) a complete list of Contractor employee names that require access to EPA information systems.
- (b) The Contractor shall provide a Contractor employee change report by the fifth day of each month after contract award to the COR. The report shall contain the listing of all Contractor employees who separated or were hired under the contract in the past 60 days. This report shall be submitted even if no separations or hires have occurred during this period. Failure to submit a Contractor employee change report may, at the Government's discretion, result in the suspension of all network accounts associated with this contract. The format for this report will be provided by the COR.
- (c) (1) The Contractor shall require each of its employees who will need system access for six months or less to utilize a Personal Identity Verification-Interoperable (PIV-I) card or equivalent, as determined by EPA, in order to access EPA information technology (IT) systems and Sensitive Information. The Contractor shall ensure that its employees will not share accounts to access EPA IT systems and Sensitive Information.
  - (2) The Contractor shall require each of its employees who will need system access for more than six months

to utilize an HSPD-12 compliant Personal Identity Verification (PIV) card, such as the EPA EPASS card, in order to access EPA IT systems and Sensitive Information. The Contractor shall ensure that its employees complete a federal government-initiated background investigation as part of the PIV issuance process. The Contractor shall ensure that its employees will not share accounts to access EPA IT systems and Sensitive Information.

- (d) EPA, at its discretion, may suspend or terminate Contractor access to any systems, information/data, and/or facilities when an Information Security Incident or other electronic access violation, use or misuse issue warrants such action. The suspension or termination shall last until EPA determines that the situation has been corrected or no longer exists. Upon request by EPA, the Contractor shall immediately return all EPA information/data, as well as any media type that houses or stores Government information.
- (e) The Contractor shall notify the COR at least five days prior to a Contractor employee being removed from a contract (notification shall be at least 15 days for key personnel in accordance with requirement 1552.237-72, *Key Personnel*). For unplanned terminations or removals of Contractor employees from the Contractor organization that occur with less than five days' notice, the Contractor shall notify the COR immediately. The Contractor shall ensure that HSPD-12/PIV cards issued to a Contractor's employee shall be returned to the COR prior to the employee's departure.
- (f) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

## Task N - Individual Notification for Personally Identifiable Information

#### (a) Definitions.

- (1) Information Security Incident is an occurrence that results in actual or potential jeopardy to the confidentiality, integrity, or availability of an information system or the information the system processes, stores or transmits, or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use policies.
- (2) Personally Identifiable Information (PII), as defined in OMB Memorandum M-07-16, Safeguarding Against and Responding to the Breach of Personally Identifiable Information, refers to sensitive information that can be used to distinguish or trace an individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual. The definition of PII is not anchored to any single category of information or technology. Rather, it requires a case-by-case assessment made by the EPA Privacy Officer of the specific risk that an individual can be identified. Non-PII can become PII whenever additional information that is publicly available in any medium and from any source is or can be combined to identify an individual. As an example, PII includes a name and an address because it uniquely identifies an individual, but alone may not constitute Sensitive PII.
- (3) Sensitive PII refers to personally identifiable information that can be used to target, harm, or coerce an individual or entity, assume or alter an individual's or entity's identity, or alter the outcome of an individual's or entity's activities. Sensitive PII requires stricter handling than PII because of the increased risk to an individual or associates if the information is compromised. Some categories of Sensitive PII include standalone information, such as Social Security numbers (SSN) or biometric identifiers. Other information such as a financial account, date of birth, maiden names, citizenship status, or medical information, in conjunction with the identity of an individual (directly or indirectly inferred), are also considered Sensitive PII. In addition, the context of the information may determine whether it is sensitive, such as a list of employees with poor performance ratings or a list of employees who have filed a grievance or complaint.

- (b) The Contractor shall have in place procedures and the capability to notify any individual whose Personally Identifiable Information (PII) resided in the Contractor information technology (IT) system at the time of an Information Security Incident not later than five business days after being directed by the Contracting Officer to notify individuals, unless otherwise approved by the Contracting Officer. The procedures must be approved by the EPA prior to use. The method and content of any notification by the Contractor shall be coordinated with, and subject to prior written approval, by the Contracting Officer in consultation with authorized EPA officials at EPA's discretion. The Contractor shall not proceed with notification unless the Contracting Officer has determined in writing that notification is appropriate.
- (c) Subject to Government analysis of the incident and the terms of its instructions to the Contractor regarding any resulting notification, the notification method may consist of letters to affected individuals sent by first class mail, electronic means, or general public notice, as approved by the Government. Notification may require the Contractor's use of address verification and/or address location services. At a minimum, the notification shall include:
  - (1) A brief description of the incident;
  - (2) A description of the types of PII and Sensitive PII involved;
  - (3) A statement as to whether the PII or Sensitive PII was encrypted or protected by other means;
  - (4) Steps individuals may take to protect themselves;
  - (5) What the Contractor and/or the Government are doing to investigate the incident, to mitigate the incident, and to protect against any future incidents; and
  - (6) Information identifying who individuals may contact for additional information, including Contractor name and point of contact (POC) and contract number.
- (d) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

#### Task O - Credit Monitoring and Identity Protection

## (a) Definitions.

- (1) Information Security Incident is an occurrence that results in actual or potential jeopardy to the confidentiality, integrity, or availability of an information system or the information the system processes, stores or transmits, or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use policies.
- (2) Personally Identifiable Information (PII), as defined in OMB Memorandum M-07-16, Safeguarding Against and Responding to the Breach of Personally Identifiable Information, refers to sensitive information that can be used to distinguish or trace an individual's identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual. The definition of PII is not anchored to any single category of information or technology. Rather, it requires a case-by-case assessment made by the EPA Privacy Officer of the specific risk that an individual can be identified. Non-PII can become PII whenever additional information that is publicly available in any medium and from any source is or can be combined to identify an individual. As an example, PII includes a name and an address because it uniquely identifies an individual, but alone may not constitute Sensitive PII.
- (3) Sensitive PII refers to personally identifiable information that can be used to target, harm, or coerce an individual or entity, assume or alter an individual's or entity's identity, or alter the outcome of an individual's

or entity's activities. Sensitive PII requires stricter handling than PII because of the increased risk to an individual or associates if the information is compromised. Some categories of Sensitive PII include standalone information, such as Social Security numbers (SSN) or biometric identifiers. Other information such as a financial account, date of birth, maiden names, citizenship status, or medical information, in conjunction with the identity of an individual (directly or indirectly inferred), are also considered Sensitive PII. In addition, the context of the information may determine whether it is sensitive, such as a list of employees with poor performance ratings or a list of employees who have filed a grievance or complaint.

- (b) Credit Monitoring Requirements. In the event that an Information Security Incident involves PII or Sensitive PII, the Contractor may be required to do the following tasks as directed by the Contracting Officer:
  - (1) Provide notification to affected individuals as described in the "Individual Notification for Personally Identifiable Information" requirement;
  - (2) Provide credit monitoring and identity protection services to individuals whose data was under the control of the Contractor or resided in the Contractor information technology (IT) system at the time of the Information Security Incident for a period beginning the date of the Incident and extending not less than 18 months from the date the individual is notified; and/or
  - (3) Use a dedicated call center; or establish one if necessary and as authorized in writing by the Contracting Officer. Call center services provided by the Contractor shall include:
    - (i) A dedicated telephone number for affected individuals to contact customer service within a fixed time period as determined by the Contracting Officer;
    - (ii) Information necessary for affected individuals to access credit reports and credit scores;
    - (iii) Weekly reports submitted to the Contracting Officer's Representative (COR) on call center volume, issue escalation (i.e., those calls that cannot be handled by call center staff and must be resolved by call center management or EPA, as appropriate), and other key metrics;
    - (iv) Escalation of calls that cannot be handled by call center staff to call center management or EPA for resolution, as appropriate;
    - (v) Preparation of customized frequently-asked-questions-and-answers (FAQs), in consultation as applicable with other parties like subject matter experts and CORs, and that must be approved in advance in writing by the Contracting Officer; and
    - (vi) Information for affected individuals to contact customer service representatives and fraud resolution representatives for credit monitoring and identity protection assistance.
- (c) Credit monitoring and identity protection services. At a minimum, the Contractor shall provide the following credit monitoring and identity protection services:
  - (1) Triple credit bureau monitoring with Equifax, Experian and Transunion;
  - (2) Daily customer service;
  - (3) Alerts provided to the individual for changes in credit posture and fraud; and/or

- (4) Assistance to the individual with enrollment in the services and the use of fraud alerts.
- (d) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

## Task P - Compliance with IT Security Policies

- (a) Information systems and system services provided to EPA by the Contractor must comply with current EPA information technology (IT), IT security, physical and personnel security and privacy policies and guidance, and EPA Acquisition Regulation 1552.211-79, Compliance with EPA Policies for Information Resources Management.
- (b) Contractors are also required to comply with current Federal regulations and guidance found in the Federal Information Security Modernization Act (FISMA) of 2014, Privacy Act of 1974, E-Government Act of 2002, Federal Information Processing Standards (FIPS), the 500- and SP500- and 800-Series Special Publications (SP), Office of Management and Budget (OMB) memoranda and other relevant Federal laws and regulations that are applicable to EPA.
- (c) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

## Task Q - Secure Technical Implementation

- (a) The Contractor shall use applications that are fully functional and operate correctly as intended on systems using the <u>United States Government Configuration Baseline (USGCB)</u>.
- (b) The Contractor's standard installation, operation, maintenance, updates, and/or patching of software must not alter the configuration settings from the approved USGCB configuration.
- (c) Contractor applications designed for normal/regular, i.e., non-privileged end users must run in the standard user context without elevated system administration privileges.
- (d) The Contractor shall apply due diligence at all times to ensure that Federal Information Processing Standard (FIPS) 199 "moderate confidentiality impact" security is always in place to protect EPA systems and information.
- (e) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

#### Task R - Internet Protocol Version 6 (IPv6)

(a) In accordance with EPA technical standards, all system hardware, software, firmware, and/or networked component or service (voice, video, or data) utilized, developed, procured, acquired or delivered in support and/or performance of this contract shall be capable of transmitting, receiving, processing, forwarding, and/or storing digital information across system boundaries utilizing system packets that are formatted in accordance with commercial standards of Internet Protocol version 6 (IPv6) as set forth in the USGv6 Profile (NIST Special Publication 500-267) and corresponding declarations of conformance defined in the USGv6 Test Program. In addition, devices and systems shall maintain interoperability with IPv4 products.

- (b) Any IP product or system utilized, developed, acquired, produced or delivered must interoperate with both IPv6 and IPv4 systems and products, in an equivalent or better way than current IPv4 capabilities with regard to functionality, performance, management and security; and have available contractor/vendor IPv6 technical support for development and implementation and fielded product management.
- (c) As IPv6 evolves, the Contractor shall upgrade or provide an appropriate migration path for each item developed, delivered or utilized, at no additional cost to the Government. The Contractor shall retrofit all non-IPv6 capable equipment, as defined above, which is fielded under this contract with IPv6 capable equipment, at no additional cost to the Government.
- (d) The Contractor shall provide technical support for both IPv4 and IPv6.
- (e) All Contractor-provided system or software must be able to operate on networks supporting IPv4, IPv6, or one supporting both.
- (f) Any product whose non-compliance is discovered and made known to the Contractor within one year after acceptance shall be upgraded, modified, or replaced to bring it into compliance, at no additional cost to the Government.
- (g) EPA reserves the right to require the Contractor's products to be tested within an EPA or third-party test facility to demonstrate contract compliance.
- (h) In accordance with <u>FAR 11.002(g)</u>, this acquisition must comply with the National Institute of Standards and Technology (NIST) US Government (USG) v6 Profile and IPv6 Test Program. The Contractor shall fund and provide resources necessary to support these testing requirements, and it will not be paid for as a direct cost under the subject contract.
- (i) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

## **Task S - Cloud Service Computing**

- (a) The Contractor handling EPA information or operating information systems on behalf of EPA must protect EPA information and information systems against unauthorized access, use, disclosure, disruption, modification, or destruction per the Federal Information Security Modernization Act (FISMA) and EPA policy.
- (b) EPA information stored in a cloud environment remains the property of EPA, and not the Contractor or cloud service provider (CSP). The Contractor may also be the CSP. EPA retains ownership of the information and any media type that stores Government information.
- (c) In the event the Contractor is the CSP or can control the CSP through a subcontracting or other business relationship then the following requirements will apply:
  - (1) The CSP does not have rights to use the EPA information for any purposes other than those explicitly stated in the contract or applicable "Rights in Data" contract requirements.
  - (2) The CSP must protect EPA information from all unauthorized access.
  - (3) The CSP must allow EPA access to EPA information including data schemas, metadata, and other associated

data artifacts that are required to ensure EPA can fully and appropriately retrieve EPA information from the cloud environment that can be stored, read, and processed.

- (4) The CSP must have been evaluated by a Third-Party Assessment Organization (3PAO) certified under the Federal Risk and Authorization Management Program (FedRAMP). The Contractor must provide the most current, and any subsequent, Security Assessment Reports to the Contracting Officer's Representative (COR) for consideration by the Information Security Officer (ISO) as part of the Contractor's overall Systems Security Plan.
- (5) The Contractor must require the CSP to follow cloud computing contract best practices identified in "Creating Effective Cloud Computing Contracts for the Federal Government" produced by the Federal Chief Information Officer (CIO) Council and Federal Chief Acquisition Officers Council.
- (d) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

#### Task T - Contract Performance Information and Testimony

- (a) Dissemination of Contract Performance Information. The Contractor must not publish, permit to be published, or distribute to the public, any information, oral or written, concerning the results or conclusions made pursuant to the performance of this contract, without the prior written consent of the Contracting Officer. A copy of any material proposed to be published or distributed must be submitted to the Contracting Officer for written approval prior to publication.
- (b) Contractor Testimony. All requests for the testimony of the Contractor or its employees, and any intention to testify as an expert witness relating to: (a) any work required by, and or performed under, this contract; or (b) any information provided by any party to assist the Contractor in the performance of this contract, must be immediately reported to the Contracting Officer.
- (c) Subcontract flowdown. The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

#### Task U - Rehabilitation Act Section 508 Standards

- (a) All electronic and information technology (EIT) procured through this contract must meet the applicable accessibility standards at 36 CFR 1194, unless a <u>FAR 39.204</u> exception to this requirement exists. 36 CFR 1194 implements Section 508 of the Rehabilitation Act of 1973, as amended, and is viewable at http://www.accessboard.gov/sec508/508standards.htm.
- (b) The following standards are determined to be applicable to this contract:
  - (1) 1194.21. Software applications and operating systems
  - (2) 1194.22. Web-based intranet and Internet information and applications
  - (3) 1194.23 Telecommunications products
  - (4) 1194.24 Video and multimedia products
  - (5) 1194.25 Self-contained, closed products
  - (6) 1194.26 Desktop and portable computers
  - (7) 1194.31 Functional performance criteria

- (8) 1194.41 Information, documentation, and support
- (c) EPA is required by Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794d), to offer access to electronic and information technology for disabled individuals within its employment, and for disabled members of the public seeking information and services. This access must be comparable to that which is offered to similar individuals who do not have disabilities. Standards for complying with this law and any future updates are prescribed by the Architectural and Transportation Barriers Compliance Board ("The Access Board").
- (d) Contractor deliverable(s) must comply with these standards.
- (e) The final work product must include documentation that demonstrates or provides assurance that the deliverable conforms to the Section 508 Standards promulgated by the Access Board.
- (f) In the event of a dispute between the Contractor and EPA, EPA's assessment of the Section 508 compliance will control and the Contractor will make any additional changes needed to conform with EPA's assessment, at no additional charge to EPA.
- (g) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

#### Task V - Termination for Default - Failure to Report Information Security Incident

- (a) Definition. *Information Security Incident* is an occurrence that results in actual or potential jeopardy to the confidentiality, integrity, or availability of an information system or the information the system processes, stores or transmits, or that constitutes a violation or imminent threat of violation of security policies, security procedures, or acceptable use policies.
- (b) If the Contractor was aware of an Information Security Incident and did not disclose it in accordance with the requirements specified in this contract or misrepresented relevant information to the Contracting Officer, the Government may terminate the contract for default, debar the Contractor from Government contracting, or pursue such other remedies as may be permitted by law or this contract.
- (c) The Contractor agrees to insert in each subcontract or consultant agreement placed hereunder, provisions which shall conform substantially to the language of this requirement, including this paragraph, unless otherwise authorized by the Contracting Officer.

AMENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTRACT		1. CONTRACT ID CODE	PAGE	OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQ	UISITION/PURCHASE REQ. NO.	5. PROJECT	NO. (If applicable)
P00002	08/16/2020				, ,,
6. ISSUED BY CODE	HQAD	7. ADN	MINISTERED BY (If other than Item 6)	CODE	
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Washington DC 20460	1 01 ( 17/0 0 ( )	loa	AMENDMENT OF COLUMNATION NO		
8. NAME AND ADDRESS OF CONTRACTOR (No., street SCIENCE APPLICATIONS INTERNATIONA Attn: Richard Democker 12010 Sunset Hills Rd Reston VA 201905856	,	9B. × 10/6 8	AMENDMENT OF SOLICITATION NO.  DATED (SEE ITEM 11)  A. MODIFICATION OF CONTRACT/ORDER HERH19D0031	NO.	
CODE	EACH ITY CODE		3. DATED (SEE ITEM 13)		
CODE 078883327	FACILITY CODE		8/09/2019		
☐ The above numbered solicitation is amended as set for	11. THIS ITEM ONLY APPLIE				
separate letter or electronic communication which incommunication and the RECEIVED AT THE PLACE DESIGNATED FOR THE OFFER. If by virtue of this amendment you desire to each letter or electronic communication makes referent 2. ACCOUNTING AND APPROPRIATION DATA (If required Science Schedule  13. THIS ITEM ONLY APPLIES TO METERS AND APPLIES TO APPLIES TO METERS AND APPLIES TO METERS AND APPLIES TO APPLIES TO APPLIES TO APPLIES TO APPLIES TO	RECEIPT OF OFFERS PRIOR T change an offer already submitted noe to the solicitation and this ame uired)	TO THE HOUR A d , such change endment, and is	ND DATE SPECIFIED MAY RESULT IN RE- may be made by letter or electronic commun	JECTION OF YC nication, provided specified.	UR
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D. OTHER (Specify type of modification	and authority)				
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E. IMPORTANT: Contractor 🗵 is not	sC36		copies to the issui	ing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 078883327	Organized by UCF section headi	ings, including s	olicitation/contract subject matter where feas	sible.)	
Max Expire Date: 02/15/2025 The purpose of this modifica 1) Exercise Option Year 1 2) Extend the Period of Perf	tion is to:			p: Vince	Camobreco
LIST OF CHANGES: Reason for Modification: Exe Total Amount for this Modifi New Total Amount for this Ve Continued	cation: \$0.00	31.82			
Except as provided herein, all terms and conditions of the	e document referenced in Item 0	Anr 10A as box	retofore changed, remains unchanged and in	n full force and of	ect
15A. NAME AND TITLE OF SIGNER ( <i>Type or print</i> )	e document referenced in item 9	16A. I	etorore changed, remains unchanged and in NAME AND TITLE OF CONTRACTING OFF ya Latson		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGI	NED 16B. I	JNITED STATES OF AMERICA	FLECTRONIC SIGNATURE	16C. DATE SIGNED
(Signature of person authorized to sign)			(Signature of Contracting Officer)	Social Charle	07/11/2020

 CONTINUATION SHEET
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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	New Total Amount for this Award: \$81,446,057.50				
	Buyer changed				
	from Tanya Latson				
	to Chantal Guetat				
	CHANGES FOR LINE ITEM NUMBER: 2				
	Exercised option				
	Poumont.				
	Payment: RTP Finance Center				
	US Environmental Protection Agency				
	RTP-Finance Center (AA216-01)				
	109 TW Alexander Drive				
	www2.epa.gov/financial/contracts				
	Durham NC 27711				
	Period of Performance: 08/16/2020 to 08/15/2021				
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## ATTACHMENT 2

INVOICE PREPARATION INSTRUCTIONS

# INVOICE PREPARATION INSTRUCTIONS SF 1035

The information which a contractor is required to submit in its Standard Form 1035 is set forth as follows:

- (1) U.S. Department, Bureau, or Establishment insert the name and address of the servicing finance office.
- (2) Voucher Number insert the voucher number as shown on the Standard Form 1034.
- (3) Schedule Number leave blank.
- (4) Sheet Number insert the sheet number if more than one sheet is used in numerical sequence. Use as many sheets as necessary to show the information required.
- (5) Number and Date of Order insert payee's name and address as in the Standard Form 1034.
- (6) Articles or Services insert the contract number as in the Standard Form 1034.
- (7) Amount insert the latest estimated cost, fee (fixed, base, or award, as applicable), total contract value, and amount and type of fee payable (as applicable).
- (8) A summary of claimed current and cumulative costs and fee by major cost element. Include the rate(s) at which indirect costs are claimed and indicate the base of each by identifying the line of costs to which each is applied. The rates invoiced should be as specified in the contract or by a rate agreement negotiated by EPA's Cost Policy and Rate Negotiation Branch.
- (9) The fee shall be determined in accordance with instructions appearing in the contract.

NOTE: Amounts claimed on vouchers must be based on records maintained by the contractor to show by major cost element the amounts claimed for reimbursement for each applicable contract. The records must be maintained based on the contractor's fiscal year and should include reconciliations of any differences between the costs incurred per books and amounts claimed for reimbursement. A memorandum record reconciling the total indirect cost(s) claimed should also be maintained.

#### SUPPORTING SCHEDULES FOR COST REIMBURSEMENT CONTRACTS

The following backup information is required as an attachment to the invoice as shown by category of cost:

<u>Direct Labor</u> - identify the number of hours (by contractor labor category and total) and the total direct labor dollars billed for the period in the invoice.

<u>Indirect Cost Rates</u> - identify by cost center, the indirect cost rate, the period, and the cost base to which it is applied.

<u>Subcontracts</u> - identify the major cost elements for each subcontract.

Other Direct Costs - when the cost for an individual cost (e.g., photocopying, material and supplies, telephone usage) exceeds \$1,000 per the invoice period, provide a detailed explanation for that cost category.

<u>Contractor Acquired Equipment (if authorized by the contract)</u> – identify by item the quantities, unit prices, and total dollars billed.

<u>Contractor Acquired Software (if authorized by the contract)</u> – identify by item the quantities, unit prices, and total dollars billed.

<u>Travel</u> - when travel costs exceed \$2,000 per invoice period, identify by trip, the number of travelers, the duration of travel, the point of origin, destination, purpose of trip, transportation by unit price, per diem rates on daily basis and total dollars billed. Detailed reporting is not required for local travel.

The manner of breakdown, e.g., work assignment/delivery order basis with/without separate program management, contract period will be specified in the contract instructions.

NOTE: Any costs requiring advance consent by the Contracting Officer will be considered improper and will be suspended, if claimed prior to receipt of Contracting Officer consent. Include the total cost claimed for the current and cumulative-to-date periods. After the total amount claimed, provide summary dollar amounts of cumulative costs: (1) suspended as of the date of the invoice; and (2) disallowed on the contract as of the date of the invoice. The amount under (2) shall include costs originally suspended and later disallowed. Also include an explanation of the changes in cumulative costs suspended or disallowed by addressing each adjustment in terms of: voucher number, date, dollar amount, source, and reason for the adjustment. Disallowed costs should be identified in unallowable accounts in the contractor's accounting system.

#### SUPPORTING SCHEDULES FOR FIXED-RATE CONTRACTS

The following backup information is required as an attachment to the invoice as shown by category of cost:

<u>Direct Labor</u> - identify by labor category the number of hours, fixed hourly rate, and the total dollars billed for the period of the invoice.

<u>Subcontracts</u> - identify the major cost elements for each subcontract.

Other Direct Costs - when the cost for an individual cost (e.g., photocopying, material and supplies, telephone usage) exceeds \$1,000 per the invoice period, provide a detailed explanation for that cost category.

<u>Indirect Cost Rates</u> - identify by cost center, the indirect cost rate, the period, and the cost base to which it is applied.

Contractor Acquired Equipment - identify by item the quantities, unit prices, and total dollars billed.

Contractor Acquired Software - identify by item the quantities, unit prices, and total dollars billed.

<u>Travel</u> - when travel costs exceed \$2,000 per invoice period, identify by trip, the number of travellers, the duration of travel, the point of origin, destination, purpose of trip, transportation by unit price, per diem rates on daily basis and total dollars billed. Detailed reporting is not required for local travel.

The manner of breakdown, e.g., work assignment/delivery order basis with/without separate program management, contract period will be specified in the contract instructions.

NOTE: Any costs requiring advance consent by the Contracting Officer will be considered improper and will be suspended, if claimed prior to receipt of Contracting Officer consent. Include the total cost claimed for the current and cumulative-to-date periods. After the total amount claimed, provide summary dollar amounts of cumulative costs: (1) suspended as of the date of the invoice; and (2) disallowed on the contract as of the date of the invoice.

The amount under (2) shall include costs originally suspended and later disallowed. Also include an explanation of the changes in cumulative costs suspended or disallowed by addressing each adjustment in terms of: voucher number, date, dollar amount, source, and reason for the adjustment. Disallowed costs should be identified in unallowable accounts in the contractor's accounting system.

#### RESUBMISSIONS

When an original voucher was submitted, but not paid in full because of suspended costs and after receipt of a letter of removal of suspension, resubmissions of any previously claimed amounts which were suspended should be submitted in a separate invoice showing the original voucher number and designated with the letter "R" with the copy of the removal of suspension notice. The amounts should be shown under the appropriate cost category and include all appropriate supplemental schedules. NOTE: All disallowances must be identified as such in the accounting system through journal entries.

Voucher resubmittals may also occur as a result of: (1) a new indirect cost rate agreement; or (2) adjustments to previously billed direct cost rates due to audit resolution. Such claims should be submitted in a separate invoice or request for contractor financing payment number. They should include supplemental schedules showing the previously adjusted amounts by contract period. If the resubmission is based on a new rate agreement, a copy of the agreement should be attached. Costs must be identified by delivery order or work assignment where appropriate. If the contract is Superfund-related, voucher resubmittals shall also identify the amount claimed against each Superfund site and non-site-specific activity.

## COMPLETION VOUCHERS

Submit a completion voucher when all performance provisions of the contract are physically complete, when the final report (if required) is accepted, and when all direct costs have been incurred and booked. Indirect costs may be claimed at the provisional rates, if final rates are not yet available. Contractors must identify these vouchers by typing "Completion Voucher" next to the voucher number. For contracts separately invoiced by delivery order, provide a schedule showing total costs claimed by delivery order and in total for the contract.

In addition to the completion voucher, the contractor must submit an original and two copies of EPA Form 1900-10, Contractor's Cumulative Claim and Reconciliation showing the total cumulative costs claimed under the contract.

The information which a contractor is required to submit in its EPA Form 1900-10 is set forth as follows:

- (1) Contractor's Name and Address show the name of the contractor exactly as it appears in the contract and its correct address, except when an assignment has been made by the contractor, or the right to receive payment has been restricted, as in the case of an advance account. When the right to receive payment is restricted, the type of information to be shown in this space shall be furnished by the Contracting Officer. The Payee's DUNS number and Tax Identification number should also be listed below the address.
- (2) Contract Number insert the number of the contract under which reimbursement is claimed.
- (3) First voucher number and completion voucher number.

- (4) Total amount of cost claimed for each cost element category through the completion voucher.
- (5) Total Fee awarded.
- (6) Amount of indirect costs calculated using negotiated final indirect cost rate(s) and/or provisional rate(s) as specified in the contract, if final rate(s) are not yet negotiated for any fiscal period.
- (7) Fiscal year.
- (8) Indirect cost center.
- (9) Appropriate basis for allocation.
- (10) Negotiated final indirect cost rate(s) or provisional indirect cost rate(s).
- (11) Signature.
- (12) Official title.
- (13) Date.

#### FINAL VOUCHER AND CLOSING DOCUMENTS

After completion of the final audit and all suspensions and/or audit exceptions have been resolved as to the final allowable costs and fee, including establishment of final indirect cost rate(s) for all periods the contractor shall prepare a final voucher including any adjustments

to vouchered costs necessitated by the final settlement of the contract price. Contractors must identify these vouchers by typing "Final Voucher" next to the voucher number. For contracts separately invoiced by delivery order, provide a schedule showing final total costs claimed

by delivery order and in total for the contract. The contractor shall also provide an original and two copies of an updated EPA Form 1900-10, Contractors Cumulative Claim and Reconciliation, showing the total negotiated, cumulative costs for the contract. Indirect costs shall be included at the final negotiated rates.

In addition to the final voucher, the contractor must submit an original and two copies of the Contractor's Release; Assignee's Release, if applicable; the Contractor's Assignment of Refunds, Rebates, Credits and other Amounts; the Assignee's Assignment of Refunds, Rebates, Credits and other Amounts, if applicable; and the Contractor's Affidavit of Waiver of Lien, when required by the contract.

AMENDMENT OF SOLICITATION/MODIFICA	ATION OF CONTRACT		I. CONTRACT ID CODE	PAG	1 2
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REC	UISITION/PURCHASE REQ. NO.	5. PROJE	⊥
P00003	See Block 16C	PR-C	AR-21-00929		
6. ISSUED BY CODE	HQAD	7. ADI	MINISTERED BY (If other than Item 6)	CODE	
HQAD US Environmental Protection William Jefferson Clinton Bu 1200 Pennsylvania Avenue, N. Mail Code: 3803R	ilding			_	
Washington DC 20460	The second section of the sect	1			
8. NAME AND ADDRESS OF CONTRACTOR (No., street SCIENCE APPLICATIONS INTERNATIONAL Attn: Richard Democker I2010 Sunset Hills Rd Reston VA 201905856		9B. x 10/6 8	AMENDMENT OF SOLICITATION NO.  DATED (SEE ITEM 11)  A. MODIFICATION OF CONTRACT/ORDER HERH 1 9 D 0 0 3 1  B. DATED (SEE ITEM 13)	R NO.	
CODE 078883327	FACILITY CODE		8/09/2019		
	11. THIS ITEM ONLY APPLIES		5		
CHECK ONE A. THIS CHANGE ORDER IS ISSUED FORDER NO. IN ITEM 10A.	change an offer already submitted to to the solicitation and this ameritied)  ODIFICATION OF CONTRACTS/OPURSUANT TO: (Specify authority)  ET/ORDER IS MODIFIED TO REFIT IN ITEM 14, PURSUANT TO THE	, such change ndment, and is RDERS. IT MO ) THE CHANG LECT THE AD E AUTHORITY	may be made by letter or electronic communication to the opening hour and date opening h	nication, provice specified.  DESCRIBED IN	N ITEM 14.
D. OTHER (Specify type of modification X FAR 52.217-9 Option		m of th	e Contract		
E. IMPORTANT: Contractor 🗵 is not			copies to the issu	uing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION (DUNS Number: 078883327  Max Expire Date: 02/15/2025  The purpose of this modifica  1) Exercise Option Year 2  2) Extend the Period of Perfall Other TERMS AND CONDITION  LIST OF CHANGES:	InvoiceApprover: tion is to:  ormance from 08/1	Margie (	Clayton Alt Invoice Ap		e Camobreco
Continued		. colored Control			
Except as provided herein, all terms and conditions of the 15A. NAME AND TITLE OF SIGNER (Type or print)	e document referenced in Item 9 A		7		
TOAL MANUE AND TITLE OF SIGNER (1998 OF PHINE)			NAME AND TITLE OF CONTRACTING OF TERA Hall	FIVER (1998 C	u pilik)
15B. CONTRACTOR/OFFEROR	15C. DATE SIGN		JNITED STATES OF AMERICA	FLECTRONII SIGNATURI	16C. DATE SIGNED

(Signature of Contracting Officer)

 CONTINUATION SHEET
 REFERENCE NO. OF DOCUMENT BEING CONTINUED
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 OF

 68HERH19D0031/P00003
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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	Reason for Modification: Exercise an Option	+			
	Period Of Performance Start Date changed from				
	16-AUG-20 to 16-AUG-21				
	Period Of Performance End Date changed from				
	15-AUG-21 to 15-AUG-22				
	Total Amount for this Modification: \$0.00				
	New Total Amount for this Version: \$0.00				
	New Total Amount for this Award: \$81,446,057.50				
	Contracting Officer changed				
	from Tanya Latson				
	to Tomeka Hall				
	Payment:				
	RTP Finance Center				
	US Environmental Protection Agency				
	RTP-Finance Center (AA216-01)				
	109 TW Alexander Drive				
	www2.epa.gov/financial/contracts Durham NC 27711				
	Period of Performance: 08/16/2021 to 08/15/2022				
i <del></del>					

AMENDMENT OF SOLICITATION/MODIFIC	ATION OF CONTRACT		1. CONTRACT ID CODE	PAGE	OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REC	LUISITION/PURCHASE REQ. NO.	5. PROJECT	NO. (If applicable)
P00004	See Block 16C				
6. ISSUED BY CODE	HQAD	7. ADI	MINISTERED BY (If other than Item 6)	CODE	
HQAD US Environmental Protection William Jefferson Clinton Bu 1200 Pennsylvania Avenue, N Mail Code: 3803R	Agency milding				
Washington DC 20460	The second section of the second section of the second section of the second section s				
8. NAME AND ADDRESS OF CONTRACTOR (No., stree SCIENCE APPLICATIONS INTERNATIONA Attn: Richard Democker 12010 Sunset Hills Rd Reston VA 201905856	in the top on the Will do topic direction	98 x 10/68	AMENDMENT OF SOLICITATION NO.  DATED (SEE ITEM 11)  A. MODIFICATION OF CONTRACT/ORDER NO. 2 HERH 1 9 D 0 0 3 1  B. DATED (SEE ITEM 13)	NO.	
CODE 078883327	FACILITY CODE	l o	8/09/2019		
	11. THIS ITEM ONLY APPLIES		9 /85		
separate letter or electronic communication which inc RECEIVED AT THE PLACE DESIGNATED FOR THE OFFER. If by virtue of this amendment you desire to each letter or electronic communication makes refere 12. ACCOUNTING AND APPROPRIATION DATA (If req. See Schedule  13. THIS ITEM ONLY APPLIES TO M	udes a reference to the solicitation RECEIPT OF OFFERS PRIOR To change an offer already submitted noe to the solicitation and this ameluired)  ODIFICATION OF CONTRACTS/O	and amendment of THE HOUR A, such change ndment, and is	ND DATE SPECIFIED MAY RESULT IN REJ may be made by letter or electronic communi	/LEDGEMENT T JECTION OF YO cation, provided specified.	O BE UR EM 14.
B. THE ABOVE NUMBERED CONTRA appropriation data, etc.) SET FORTI  C. THIS SUPPLEMENTAL AGREEMEN  D. OTHER (Specify type of modification	T IS ENTERED INTO PURSUANT		MINISTRATIVE CHANGES (such as changes OF FAR 43.103(b). TY OF:	in paying office,	
X E014042	and admonty)				
E. IMPORTANT: Contractor  is not	X is required to sign this docume	ent and return	1 copies to the issuir	na office	
14. DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 078883327  Max Expire Date: 02/15/2025  The purpose of this modifical SAFETY PROTOCOLS FOR FEDERAL and conditions remain unchant solve the second seco	InvoiceApprover: tion is to incorp CONTRACTORS (DEV ged.  COVID-19 SAFETY Phis clause  g areas means	Margie orate 5 IATION)  ROTOCOL	Clayton Alt Invoice App 2.223-99 ENSURING ADEQU into the contract. Al	D: Vince  JATE COVI  Ll other  DRS (DEV)	D-19 terms ATION)
15B. CONTRACTOR/OFFEROR	15C. DATE SIGN		UNITED STATES OF AMERICA	FLECTRONIC	16C. DATE SIGNED
(Signature of person authorized to sign)		3		SIGNATURE	10/27/2021

 CONTINUATION SHEET
 REFERENCE NO. OF DOCUMENT BEING CONTINUED 68HERH19D0031/P00004
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NAME OF OFFEROR OR CONTRACTOR

ΓΕΜ NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	(2) The District of Columbia;				
	(3) The commonwealths of Puerto Rico and the				
	Northern Mariana Islands;				
	(4) The territories of American Samoa, Guam, and				
	the United States Virgin Islands; and				
	(5) The minor outlying islands of Baker Island,				
	Howland Island, Jarvis Island, Johnston Atoll,				
	Kingman Reef, Midway Islands, Navassa Island,				
	Palmyra Atoll, and Wake Atoll.				
	(b) Authority. This clause implements Executive				
	Order 14042, Ensuring Adequate COVID Safety				
	Protocols for Federal Contractors, dated				
	September 9, 2021 (published in the Federal				
	Register on September 14, 2021, 86 FR 50985).				
	(c) Compliance. The Contractor shall comply with				
	all guidance, including guidance conveyed through				
	Frequently Asked Questions, as amended during the				
	performance of this contract, for contractor or				
	subcontractor workplace locations published by				
	the Safer Federal Workforce Task Force (Task				
	Force Guidance) at				
	https://www.saferfederalworkforce.gov/contractors/				
	. Under System of Record Notice EPA-89, EPA is				
	authorized to collect contractor verification,				
	vaccination, and testing information. EPA				
	reserves the right to request this information				
	from the contractor at its discretion.				
	(d) Subcontracts. The Contractor shall include				
	the substance of this clause, including this				
	paragraph (d), in subcontracts at any tier that				
	exceed the simplified acquisition threshold, as				
	defined in Federal Acquisition Regulation 2.101				
	on the date of subcontract award, and are for				
	services, including construction, performed in				
	whole or in part within the United States or its				
	outlying areas.				
	LIST OF CHANGES:				
	Reason for Modification: Other Administrative				
	Action				
	Contracting Officer changed				
	from Tomeka Hall				
	to Tanya Latson				
	Continued				

 CONTINUATION SHEET
 REFERENCE NO. OF DOCUMENT BEING CONTINUED 68HERH19D0031/P00004
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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)		(D)	(E)	(F)
	Onsite Contract changed to : N				
	Payment:				
	RTP Finance Center US Environmental Protection Agency				
	RTP-Finance Center (AA216-01)				
	109 TW Alexander Drive				
	www2.epa.gov/financial/contracts				
	Durham NC 27711				
	Period of Performance: 08/16/2021 to 08/15/2022				
NCN 7540 04 451			1		ORTIONAL FORMACO (4.00)

AMENDMENT OF SOLICITATION/MODIFICA	ATION OF CONTRACT		1. CONTRACT ID CODE	PAGE	OF PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REC	LUISITION/PURCHASE REQ. NO.	5. PROJECT	NO. (If applicable)
P00005	08/16/2022	PR-C	AR-22-00531		
6. ISSUED BY CODE	HOAD	7. ADI	MINISTERED BY (If other than Item 6)	CODE	
HQAD US Environmental Protection William Jefferson Clinton Bu 1200 Pennsylvania Avenue, N. Mail Code: 3803R	ilding			_	
Washington DC 20460	1.0(4	loa	AMENICHENT OF COLLOTATION NO		
8. NAME AND ADDRESS OF CONTRACTOR (No., street SCIENCE APPLICATIONS INTERNATIONA Attn: Richard Democker 2010 Sunset Hills Rd Reston VA 201905856		9B × 10,68	AMENDMENT OF SOLICITATION NO.  DATED (SEE ITEM 11)  A. MODIFICATION OF CONTRACT/ORDER NO.  BHERH 1 9 D 0 0 3 1  B. DATED (SEE ITEM 13)	10.	
CODE 078883327	FACILITY CODE		and the second of the second o		
	11. THIS ITEM ONLY APPLIES TO		8/09/2019		
	RECEIPT OF OFFERS PRIOR TO THe change an offer already submitted, such to the solicitation and this amendmaired)  ODIFICATION OF CONTRACTS/ORDE	HE HOUR / ch change ent, and is	AND DATE SPECIFIED MAY RESULT IN REJE may be made by letter or electronic communic	ECTION OF YO cation, provided pecified.	OUR I
B. THE ABOVE NUMBERED CONTRAC appropriation data, etc.) SET FORTH  C. THIS SUPPLEMENTAL AGREEMEN  D. OTHER (Specify type of modification	T IS ENTERED INTO PURSUANT TO		MINISTRATIVE CHANGES (such as changes OF FAR 43.103(b). TY OF:	in paying office	9,
X FAR 52.217-9: OPTION	TO EXTEND THE TERM	OF T	HE CONTRACT		
E. IMPORTANT: Contractor X is not	is required to sign this document a	and return	copies to the issuing	g office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 078883327  Max Expire Date: 02/15/2025  The purpose of this modifica	InvoiceApprover: Ma				Camobreco
l) Exercise Option Year 3.					
2) Extend the Period of Perf	ormance from 08/16/	2022	to 08/15/2023.		
LIST OF CHANGES:					
Reason for Modification: Exe	rcise an Option				
Continued					
Except as provided herein, all terms and conditions of the 15A. NAME AND TITLE OF SIGNER (Type or print)	e document referenced in Item 9 A or	16A.	retofore changed, remains unchanged and in f NAME AND TITLE OF CONTRACTING OFFIC LYA Latson		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B.	UNITED STATES OF AMERICA	TECTRONIC SIGNATURE	16C. DATE SIGNED
(Signature of person authorized to sign)			(Signature of Contracting Officer)		03/29/2022

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 REFERENCE NO. OF DOCUMENT BEING CONTINUED 68HERH19D0031/P00005
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NAME OF OFFEROR OR CONTRACTOR

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
(A)	(B)	(C)	(D)	(E)	(F)
	Period Of Performance Start Date changed from				
	16-AUG-21 to 16-AUG-22				
	Period Of Performance End Date changed from				
	15-AUG-22 to 15-AUG-23				
	Total Amount for this Modification: \$0.00 New Total Amount for this Version: \$16,431,577.74				
	New Total Amount for this Version: \$16,431,577.74  New Total Amount for this Award: \$81,446,057.50				
	Potential for Conflict of Interest* (See EPAAG				
	Chapter 9.5) changed to: N				
	Advisory Assistance Services* (See EPAAG Chapter				
	7.1.1) changed to : N				
	BIB - Infrastructure Bill Funds changed to : N/A				
	CHANGES FOR LINE ITEM NUMBER: 4				
	Exercised option				
	Payment:				
	RTP Finance Center				
	US Environmental Protection Agency				
	RTP-Finance Center (AA216-01)				
	109 TW Alexander Drive				
	www2.epa.gov/financial/contracts Durham NC 27711				
	Period of Performance: 08/16/2022 to 08/15/2023				
	ALL OTHER TERMS & CONDITIONS REMAIN UNCHANGED.				
	The stands of semiliarity and an arrangement of the seminor of the				
NICH 7540 04 450		<u> </u>	1		ORTIONAL FORMACO (4.00)